

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER 14-13D-45 BTR				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT UNDESIGNATED				
4. TYPE OF WELL Oil Well <input checked="" type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						5. UNIT or COMMUNITIZATION AGREEMENT NAME				
6. NAME OF OPERATOR BILL BARRETT CORP						7. OPERATOR PHONE 303 312-8164				
8. ADDRESS OF OPERATOR 1099 18th Street Ste 2300, Denver, CO, 80202						9. OPERATOR E-MAIL BHilgers@billbarrettcorp.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) 2OG0005608			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') Uintah and Ouray			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		532 FSL 2080 FWL		SESW	13	4.0 S	5.0 W	U		
Top of Uppermost Producing Zone		808 FSL 1979 FWL		SESW	13	4.0 S	5.0 W	U		
At Total Depth		810 FSL 1980 FWL		SESW	13	4.0 S	5.0 W	U		
21. COUNTY DUCHESTER			22. DISTANCE TO NEAREST LEASE LINE (Feet) 810			23. NUMBER OF ACRES IN DRILLING UNIT 640				
			25. DISTANCE TO NEAREST WELL IN SAME BLOCK (Applied For Drilling or Completion) 225			26. PROPOSED DEPTH MD: 7963 TVD: 7948				
27. ELEVATION - GROUND LEVEL 6029			28. BOND NUMBER LPM8874725			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-180				
Well Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Cond	26	16	0 - 80	65	Unknown	8.8	No Used	0	0.0	0.0
Surf	12.25	9.625	0 - 2000	36.0	J-55 ST&C	8.8	Halliburton Light , Type Unknown	280	3.16	11.0
							Halliburton Premium , Type Unknown	210	1.36	14.8
Prod	8.75	6.625	0 - 7963	17.0	P-110 LT&C	9.6	Unknown	630	2.31	11.0
							Unknown	720	1.42	13.5
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Venessa Langmacher			TITLE Senior Permit Analyst			PHONE 303 312-8172				
SIGNATURE			DATE 06/21/2012			EMAIL vlangmacher@billbarrettcorp.com				
API NUMBER ASSIGNED 43013514950000					APPROVAL					

Received: June 27, 2012

BILL BARRETT CORPORATION

DRILLING PLAN

14-13D-45 BTR

SE SW, 532' FSL and 2080' FWL, Section 13, T4S-R5W, USB&M (surface hole)

SE SW, 810' FSL and 1980' FWL, Section 13, T4S-R5W, USB&M (bottom hole)

Duchesne County, Utah

1 - 2. Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals

<u>Formation</u>	<u>Depth – MD</u>	<u>Depth - TVD</u>
Lower Green River*	4,176'	4,167'
Douglas Creek	5,036'	5,022'
Black Shale	5,812'	5,798'
Castle Peak	6,068'	6,054'
Uteland Butte	6,440'	6,426'
Wasatch*	6,673'	6,659'
TD	7,963'	7,948'

*PROSPECTIVE PAY

The Wasatch and the Lower Green River are primary objectives for oil/gas.

Base of Useable Water = 5400'

3. BOP and Pressure Containment Data

<u>Depth Interval</u>	<u>BOP Equipment</u>
0 – 2,000'	No pressure control required
2,000' – TD	11" 5000# Ram Type BOP 11" 5000# Annular BOP
- Drilling spool to accommodate choke and kill lines; - Ancillary equipment and choke manifold rated at 5,000 psi. All BOP and BOPE tests will be in accordance with the requirements of onshore Order No. 2; - The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests. - BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up To operate most efficiently in this manner.	

4. Casing Program

<u>Hole Size</u>	<u>SETTING DEPTH</u>		<u>Casing Size</u>	<u>Casing Weight</u>	<u>Casing Grade</u>	<u>Thread</u>	<u>Condition</u>
	<u>(FROM)</u>	<u>(TO)</u>					
26"	Surface	80'	16"	65#			
12 1/4"	Surface	2,000'	9 5/8"	36#	J or K 55	ST&C	New
8 3/4"	Surface	TD	5 1/2"	17#	P-110	LT&C	New

Bill Barrett Corporation
Drilling Program
14-13D-45 BTR
Duchesne County, Utah

5. **Cementing Program**

16" Conductor Casing	Grout
9 5/8" Surface Casing	Lead: 280 sx Halliburton Light Premium with additives mixed at 11.0 ppg (yield = 3.16 ft ³ /sx) circulated to surface with 75% excess. TOC @ Surface Tail: 210 sx Halliburton Premium Plus cement with additives mixed at 14.8 ppg (yield = 1.36 ft ³ /sx), calculated hole volume with 75% excess. TOC @ 1,500'
5 1/2" Production Casing	Lead: 630 sx Tuned Light cement with additives mixed at 11.0 ppg (yield = 2.31 ft ³ /sx). TOC @ 1,200' Tail: 720 sx Halliburton Econocem cement with additives mixed at 13.5 ppg (yield = 1.42 ft ³ /sx). Top of cement to be determined by log and sample evaluation; estimated TOC @ 5,312'

6. **Mud Program**

<u>Interval</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u> (API filtrate)	<u>Remarks</u>
0' – 80'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
80' – 2,000'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
2,000' – TD	8.6 – 9.6	42-52	20 cc or less	DAP Polymer Fluid System
Note: Sufficient mud material to maintain mud properties, control lost circulation and to contain "kicks" will be available at every site. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag.				

7. **Testing, Logging and Core Programs**

Core	None anticipated;
Testing	None anticipated; drill stem tests may be run on shows of interest;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	MWD as needed to land wellbore;
Logging	DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR (all TD to surface). FMI & Sonic Scanner to be run at geologist's discretion.

8. **Anticipated Abnormal Pressures or Temperatures**

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 3967 psi* and maximum anticipated surface pressure equals approximately 2219 psi** (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

**Maximum surface pressure = A – (0.22 x TD)

Bill Barrett Corporation
Drilling Program
14-13D-45 BTR
Duchesne County, Utah

9. **Auxiliary Equipment**

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
 - b) Inside BOP or stab-in valve (available on rig floor)
 - c) Safety valve(s) and subs to fit all string connections in use
- Mud monitoring will be visually observed

10. **Location and Type of Water Supply**

Water for the drilling and completion will be trucked from the Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W water right number 43-180.

11. **Drilling Schedule**

Location Construction:	July 2012
Spud:	July 2012
Duration:	15 days drilling time
	45 days completion time

Returned Unapproved



Bill Barrett Corporation

LAKE CANYON & BLACK TAIL RIDGE CEMENT VOLUMES

Well Name: 14-13D-45 BTR

Surface Hole Data:

Total Depth:	2,000'
Top of Cement:	0'
OD of Hole:	12.250"
OD of Casing:	9.625"

Calculated Data:

Lead Volume:	822.1	ft ³
Lead Fill:	1,500'	
Tail Volume:	274.0	ft ³
Tail Fill:	500'	

Cement Data:

Lead Yield:	3.16	ft ³ /sk
% Excess:	75%	
Top of Lead:	0'	

Calculated # of Sacks:

# SK's Lead:	280
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Tail Yield:	1.36	ft ³ /sk
% Excess:	75%	
Top of Tail:	500'	

# SK's Tail:	210
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Production Hole Data:

Total Depth:	7,963'
Top of Cement:	1,500'
Top of Tail:	5,312'
OD of Hole:	8.750"
OD of Casing:	5.500"

Calculated Data:

Lead Volume:	1444.3	ft ³
Lead Fill:	3,812'	
Tail Volume:	1004.5	ft ³
Tail Fill:	2,651'	

Cement Data:

Lead Yield:	2.31	ft ³ /sk
Tail Yield:	1.42	ft ³ /sk
% Excess:	50%	

Calculated # of Sacks:

# SK's Lead:	630
# SK's Tail:	720

14-13D-45 BTR Proposed Cementing Program

<u>Job Recommendation</u>	<u>Surface Casing</u>
Lead Cement - (1500' - 0')	
Halliburton Light Premium	Fluid Weight: 11.0 lbm/gal
5.0 lbm/sk Silicalite Compacted	Slurry Yield: 3.16 ft ³ /sk
0.25 lbm/sk Kwik Seal	Total Mixing Fluid: 19.48 Gal/sk
0.125 lbm/sk Poly-E-Flake	Top of Fluid: 0'
2.0% Bentonite	Calculated Fill: 1,500'
	Volume: 146.41 bbl
	Proposed Sacks: 280 sks
Tail Cement - (TD - 1500')	
Premium Cement	Fluid Weight: 14.8 lbm/gal
2.0% Calcium Chloride	Slurry Yield: 1.36 ft ³ /sk
	Total Mixing Fluid: 6.34 Gal/sk
	Top of Fluid: 1,500'
	Calculated Fill: 500'
	Volume: 48.80 bbl
	Proposed Sacks: 210 sks

<u>Job Recommendation</u>	<u>Production Casing</u>
Lead Cement - (5312' - 1500')	
Tuned Light™ System	Fluid Weight: 11.0 lbm/gal
	Slurry Yield: 2.31 ft ³ /sk
	Total Mixing Fluid: 10.65 Gal/sk
	Top of Fluid: 1,500'
	Calculated Fill: 3,812'
	Volume: 257.23 bbl
	Proposed Sacks: 630 sks
Tail Cement - (7963' - 5312')	
Econocem™ System	Fluid Weight: 13.5 lbm/gal
0.125 lbm/sk Poly-E-Flake	Slurry Yield: 1.42 ft ³ /sk
1.0 lbm/sk Granulite TR 1/4	Total Mixing Fluid: 6.61 Gal/sk
	Top of Fluid: 5,312'
	Calculated Fill: 2,651'
	Volume: 178.90 bbl
	Proposed Sacks: 720 sks

T4S, R5W, U.S.B.&M.

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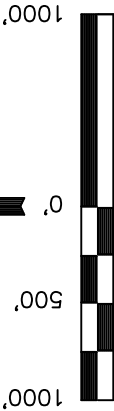
Well location, #14-13D-45 BTR, located as shown in the SE 1/4 SW 1/4 of Section 13, T4S, R5W, U.S.B.&M., Duchesne County, Utah.

BASIS OF ELEVATION

BENCH MARK (M67) LOCATED IN THE SW 1/4 OF SECTION 9, T5S, R4W, U.S.B.&M., TAKEN FROM THE DUCHESNE SE, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED ON CAP AS BEING 6097 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

ROBERT L. KAY
REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REV: 07-01-11

UTAH ENGINEERING & LAND SURVEYING

85 SOUTH 200 EAST - VERNAL, UTAH 84078

(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	04-22-11	05-11-11
PARTY	REFERENCES	
G.M. J.R. K.O.	G.L.O. PLAT	
WEATHER	FILE	
COLD		BILL BARRETT CORPORATION

S89°34'38"W - 2637.23' (Meas.)

S89°33'25"W - 2632.49' (Meas.)

2011 UELS Alum. Cap. Pile of Stones

Set Marked Stone

S00°04'41"E - 2649.29' (Meas.)

2002 3" Alum. Cap. Pile of Stones

S00°22'15"E - 2639.13' (Meas.)

LINE	BEARING	LENGTH
L1	N20°09'35"W	295.03'

13

Set Marked Stone, 1" High Yellow Cap

N00°03'02"E - 2635.10' (Meas.)

Bottom Hole

#14-13D-45 BTR

Elev. Ungraded Ground = 6029'

1/2" Spike, N89°13'32"E - 2608.36' (Meas.)

Set Marked Stone

N89°40'38"E - 2643.03' (Meas.)

Set Marked Stone

LEGEND:

— = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)

LATITUDE = 40°07'41.60" (40.128222)
LONGITUDE = 110°24'03.62" (110.401006)

NAD 27 (TARGET BOTTOM HOLE)

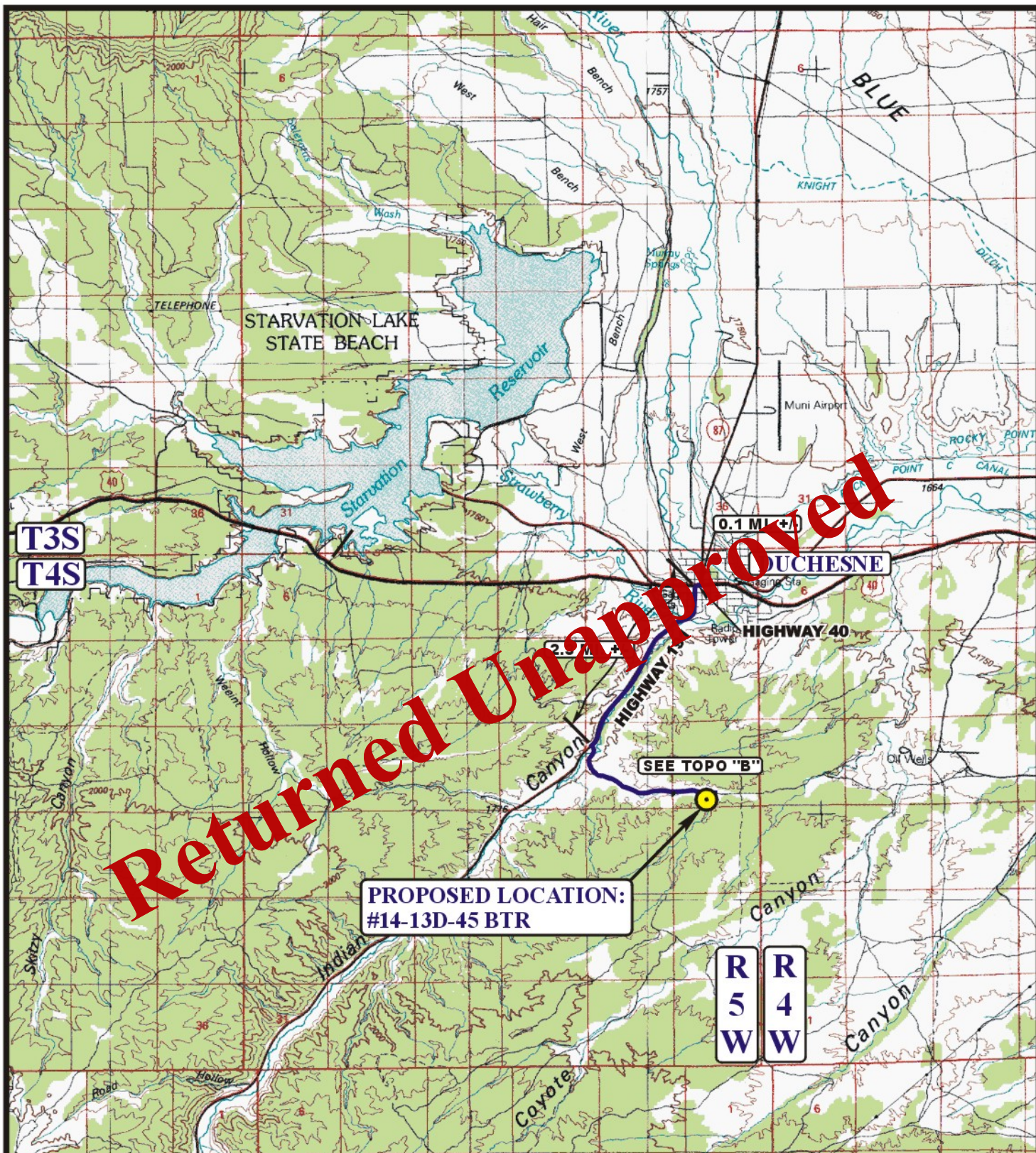
LATITUDE = 40°07'41.74" (40.128261)
LONGITUDE = 110°24'01.06" (110.400294)

NAD 83 (SURFACE LOCATION)

LATITUDE = 40°07'38.86" (40.127461)
LONGITUDE = 110°24'02.31" (110.400642)

NAD 27 (SURFACE LOCATION)

LATITUDE = 40°07'39.01" (40.127503)
LONGITUDE = 110°23'59.75" (110.399931)



LEGEND:

PROPOSED LOCATION



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813



BILL BARRETT CORPORATION

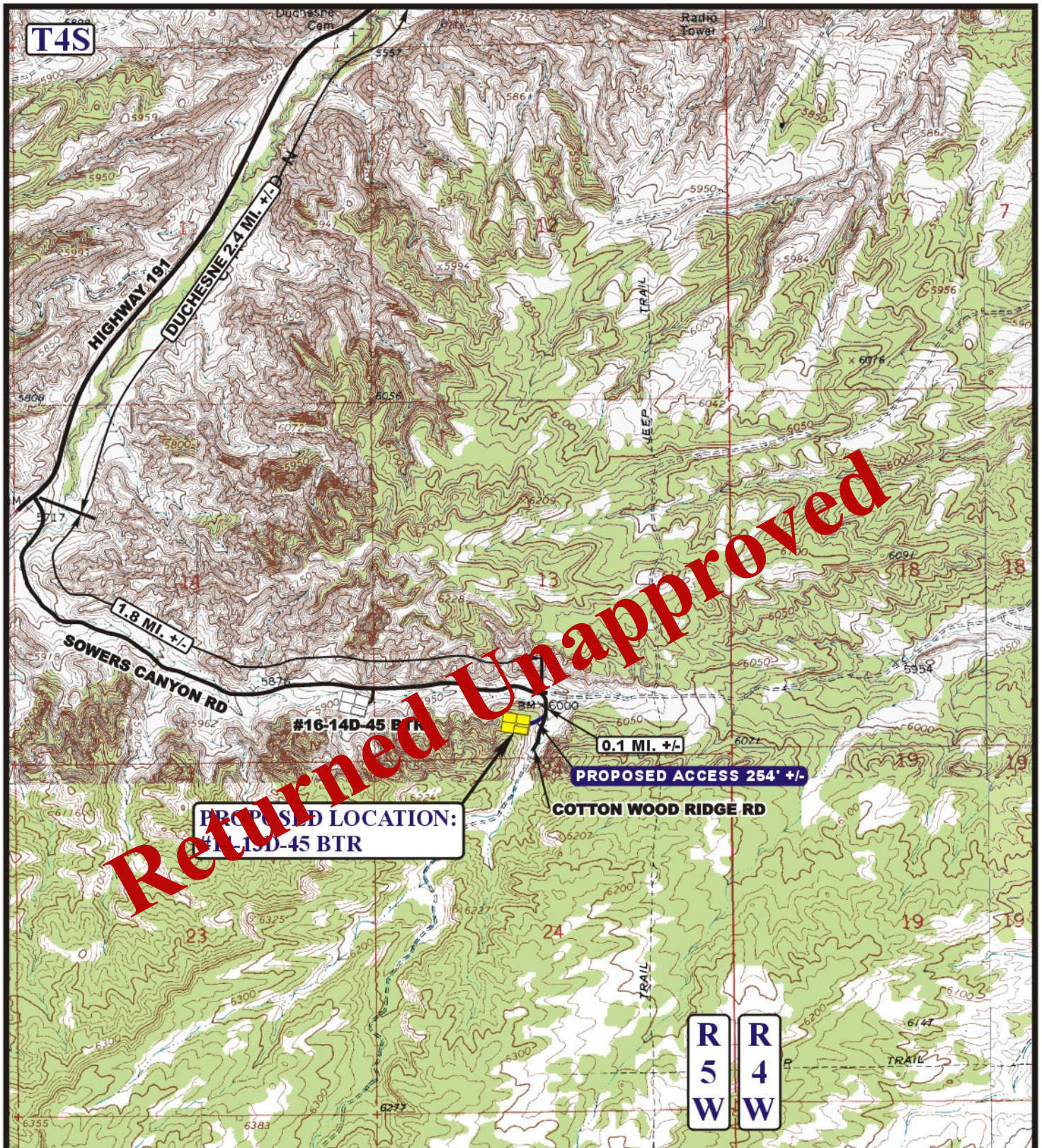
#14-13D-45 BTR
SECTION 13, T4S, R5W, U.S.B.&M.
532' FSL 2080' FWL

ACCESS ROAD
MAP

05 09 11
 MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: C.A.G. REVISED: 06-29-11





LEGEND:

———— EXISTING ROAD
 - - - - - PROPOSED ACCESS ROAD



BILL BARRETT CORPORATION

#14-13D-45 BTR
SECTION 13, T4S, R5W, U.S.B.&M.
532' FSL 2080' FWL



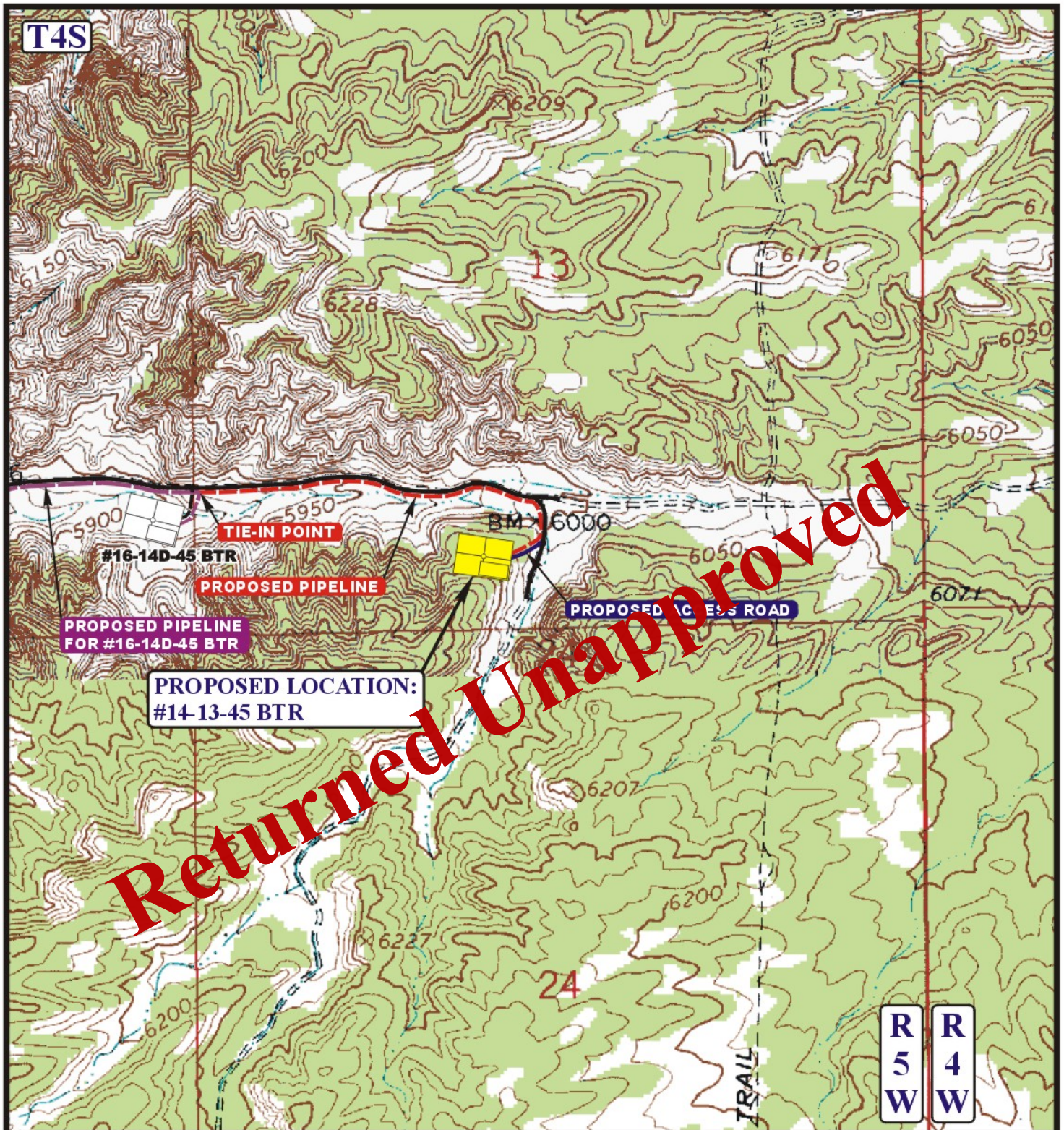
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

ACCESS ROAD
MAP

05 09 11
 MONTH DAY YEAR

B
TOPO

SCALE: 1" = 2000' DRAWN BY: C.A.G. REV: 02-06-12 C.I.



APPROXIMATE TOTAL PIPELINE DISTANCE = 2,979' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- - - - - PROPOSED PIPELINE
- - - - - PROPOSED PIPELINE (SERVICING OTHER WELLS)

U&L S Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

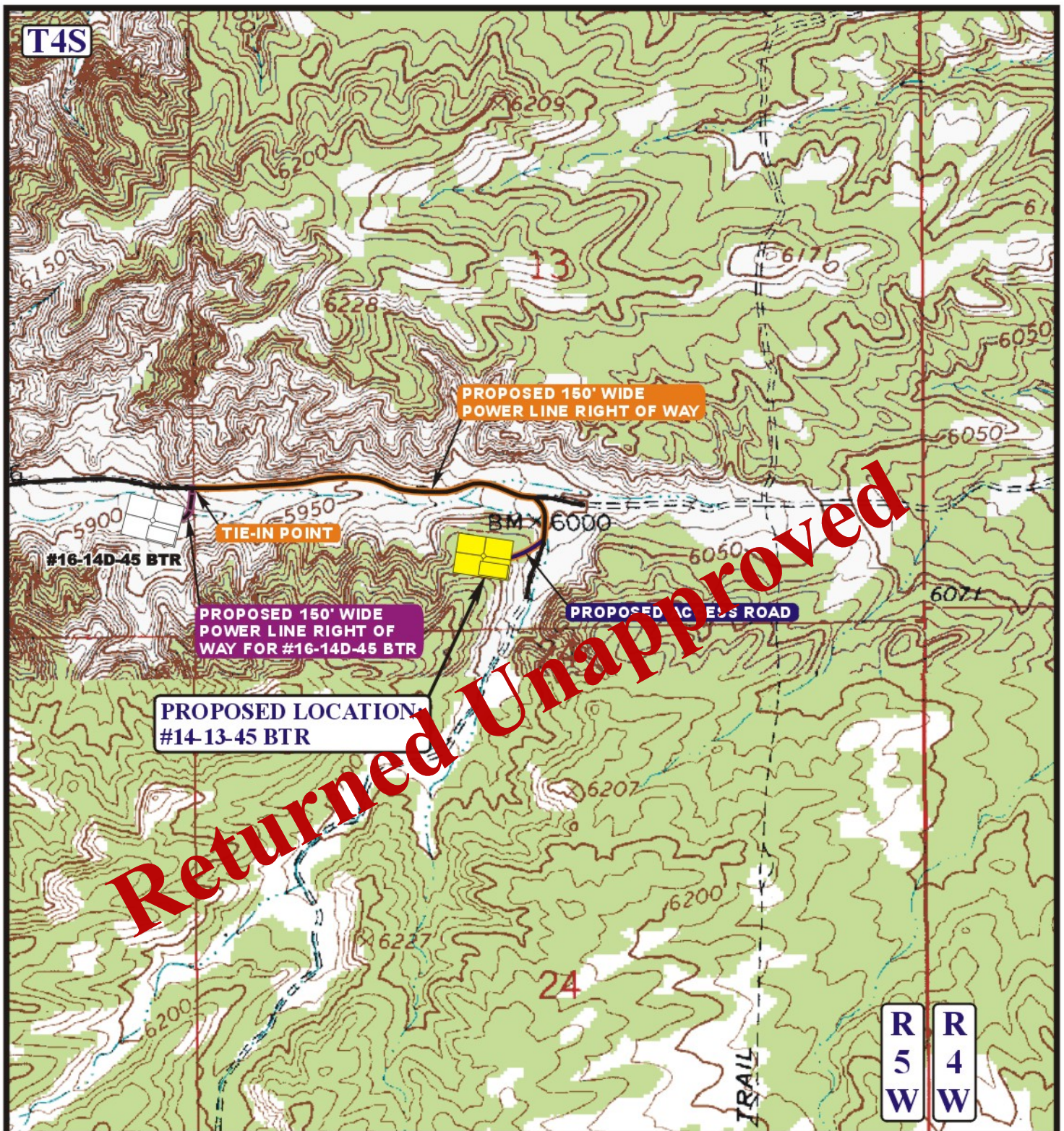


BILL BARRETT CORPORATION

#14-13D-45 BTR
SECTION 13, T4S, R5W, U.S.B.&M.
532' FSL 2080' FWL

TOPOGRAPHIC MAP **05 09 11**
MONTH DAY YEAR
SCALE: 1" = 1000' DRAWN BY: C.A.G. REV: 02-06-12 C.I.

C
TOPO



APPROXIMATE TOTAL POWER LINE DISTANCE = 3,101' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- PROPOSED POWER LINE
- PROPOSED POWER LINE (SERVICING OTHER WELLS)



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813



BILL BARRETT CORPORATION

#14-13D-45 BTR
SECTION 13, T4S, R5W, U.S.B.&M.
532' FSL 2080' FWL

TOPOGRAPHIC
MAP

05 09 11
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: C.A.G. REV: 02-06-12 C.I.

D
TOPO



Bill Barrett Corp.
Project: Duchesne Co., UT (NAD27)
Site: Sec.13-T4S-R5W
Well: #14-13D-45 BTR
Wellbore: Wellbore #1
Design: Design #1
Latitude: 40° 7' 39.011 N
Longitude: 110° 23' 59.752 W
Ground Level: 6031.00
WELL @ 6046.00usft



WELL DETAILS: #14-13D-45 BTR

+N/-S	+E/-W	Northing	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	655379.794	6031.00 2307597.876	40° 7' 39.011 N	110° 23' 59.752 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
14-13D-45 BTR Tgt	5398.00	276.11	-101.50	40° 7' 41.740 N	110° 24' 1.058 W	Rectangle (Sides: L200.00 W200.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.00
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	Start 2054.56 hold at 2729.17 MD
2729.17	6.29	339.82	2727.91	32.39	-11.91	1.00	339.82	34.51	Start Drop -1.00
4783.73	6.29	339.82	4770.09	243.72	-89.60	0.00	0.00	259.67	Start 2550.00 hold at 5412.90 MD
5412.90	0.00	0.00	5398.00	276.11	-101.50	1.00	180.00	294.18	TD at 7962.90
7962.90	0.00	0.00	7948.00	276.11	-101.50	0.00	0.00	294.18	

PROJECT DETAILS: Duchesne Co., UT (NAD27)

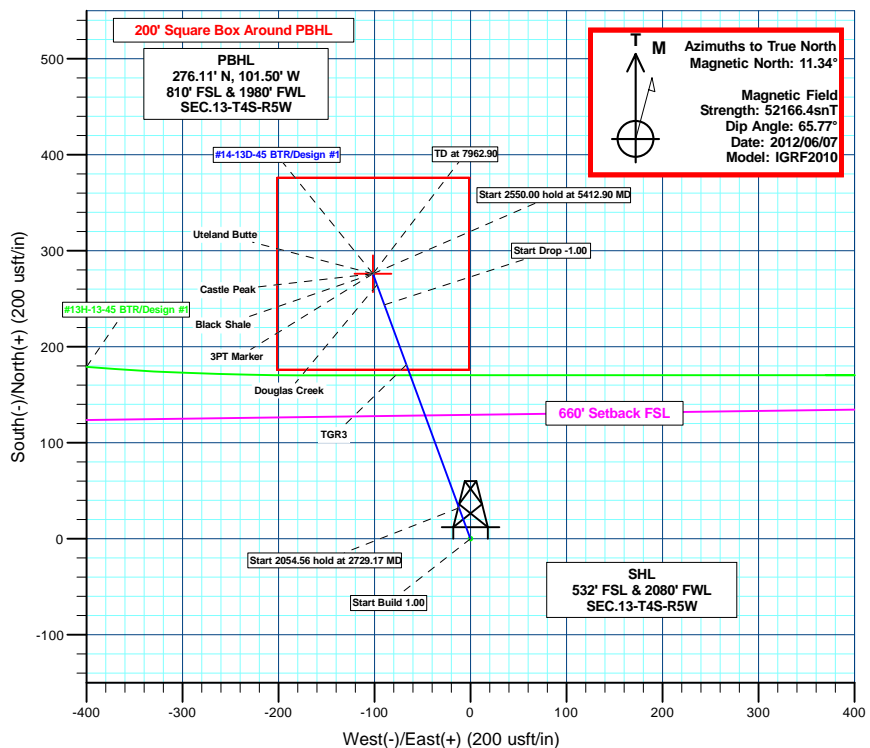
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well #14-13D-45 BTR, True North
Vertical (TV) Reference: WELL @ 6046.00usft
Section (VS) Reference: Slot - (0.00N, 0.00E)
Insured Well Reference: WELL @ 6046.00usft
Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2190.00	2190.00	Green River
2997.00	2999.89	Mahogany
4167.00	4176.98	TGR3
5022.00	5036.63	Douglas Creek
5398.00	5412.90	3PT Marker
5798.00	5812.90	Black Shale
6054.00	6068.90	Castle Peak
6426.00	6440.90	Uteland Butte
6485.00	6499.90	CR1
6526.00	6540.90	CR1A Base
6659.00	6673.90	Wasatch
6811.00	6825.90	CR2
7059.00	7073.90	CR3
7648.00	7662.90	CR4
7648.00	7662.90	CR4A
7797.00	7811.90	CR5



Plan: Design #1 (#14-13D-45 BTR/Wellbore #1)

Created By: BRET WOLFORD Date: 14:49, June 07, 2012

Received: June 21, 2012



Bill Barrett Corporation

Bill Barrett Corp.

Duchesne Co., UT (NAD27)

Sec.13-T4S-R5W

#14-13D-45 BTR

Wellbore #1

Plan: Design #1

Standard Planning Report

07 June, 2012

Returned Unapproved



Sharewell
Energy Services

Received: June 21, 2012

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 6046.00usft
Project:	Duchesne Co., UT (NAD27)	MD Reference:	WELL @ 6046.00usft
Site:	Sec.13-T4S-R5W	North Reference:	True
Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Duchesne Co., UT (NAD27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	Sec.13-T4S-R5W		
Site Position:		Northing:	655,527.921 usft
From:	Lat/Long	Easting:	2,309,917.097 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	40° 7' 40.192 N
		Longitude:	110° 23' 29.872 W
		Grid Convergence:	0.71 °

Well	#14-13D-45 BTR		
Well Position	+N/-S	-119.38 usft	Northing: 655,379.794 usft
	+E/-W	-2,320.88 usft	Easting: 2,307,597.876 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	40° 7' 39.011 N
		Longitude:	110° 23' 59.752 W
		Ground Level:	6,031.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	06/07/12	11.34
			Dip Angle (°)
			65.77
			Field Strength (nT)
			52,166

Design	Design #1		
Audit Notes:			
Version:	Present	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (°)
			339.82

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,729.17	6.29	339.82	2,727.91	32.39	-11.91	1.00	1.00	0.00	339.82	
4,783.73	6.29	339.82	4,770.09	243.72	-89.60	0.00	0.00	0.00	0.00	
5,412.90	0.00	0.00	5,398.00	276.11	-101.50	1.00	-1.00	0.00	180.00	14-13D-45 BTR Tgt
7,962.90	0.00	0.00	7,948.00	276.11	-101.50	0.00	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 6046.00usft
Project:	Duchesne Co., UT (NAD27)	MD Reference:	WELL @ 6046.00usft
Site:	Sec.13-T4S-R5W	North Reference:	True
Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8" Csg.									
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.00									
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
2,190.00	0.90	339.82	2,190.00	0.66	-0.24	0.71	1.00	1.00	0.00
2,200.00	2.00	339.82	2,199.99	0.82	-0.30	0.87	1.00	1.00	0.00
2,300.00	2.00	339.82	2,299.96	3.28	-1.20	3.49	1.00	1.00	0.00
2,400.00	2.00	339.82	2,399.86	7.37	-2.71	7.85	1.00	1.00	0.00
2,500.00	4.00	339.82	2,499.68	13.10	-4.82	13.96	1.00	1.00	0.00
2,600.00	5.00	339.82	2,599.37	20.46	-7.52	21.80	1.00	1.00	0.00
2,700.00	6.00	339.82	2,698.90	29.46	-10.83	31.39	1.00	1.00	0.00
Start 2054.56 hold at 2729.17 MD									
2,729.17	6.29	339.82	2,727.91	32.39	-11.91	34.51	1.00	1.00	0.00
2,800.00	6.29	339.82	2,798.31	39.68	-14.59	42.27	0.00	0.00	0.00
2,900.00	6.29	339.82	2,897.71	49.96	-18.37	53.23	0.00	0.00	0.00
Mahogany									
2,999.89	6.29	339.82	2,997.00	60.24	-22.14	64.18	0.00	0.00	0.00
3,000.00	6.29	339.82	2,997.11	60.25	-22.15	64.19	0.00	0.00	0.00
3,100.00	6.29	339.82	3,096.50	70.53	-25.93	75.15	0.00	0.00	0.00
3,200.00	6.29	339.82	3,195.90	80.82	-29.71	86.11	0.00	0.00	0.00
3,300.00	6.29	339.82	3,295.30	91.11	-33.49	97.07	0.00	0.00	0.00
3,400.00	6.29	339.82	3,394.70	101.39	-37.27	108.03	0.00	0.00	0.00
3,500.00	6.29	339.82	3,494.09	111.68	-41.05	118.99	0.00	0.00	0.00
3,600.00	6.29	339.82	3,593.49	121.96	-44.84	129.94	0.00	0.00	0.00
3,700.00	6.29	339.82	3,692.89	132.25	-48.62	140.90	0.00	0.00	0.00
3,800.00	6.29	339.82	3,792.29	142.54	-52.40	151.86	0.00	0.00	0.00
3,900.00	6.29	339.82	3,891.68	152.82	-56.18	162.82	0.00	0.00	0.00
4,000.00	6.29	339.82	3,991.08	163.11	-59.96	173.78	0.00	0.00	0.00
4,100.00	6.29	339.82	4,090.48	173.39	-63.74	184.74	0.00	0.00	0.00
TGR3									
4,176.98	6.29	339.82	4,167.00	181.31	-66.65	193.18	0.00	0.00	0.00
4,200.00	6.29	339.82	4,189.88	183.68	-67.52	195.70	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 6046.00usft
Project:	Duchesne Co., UT (NAD27)	MD Reference:	WELL @ 6046.00usft
Site:	Sec.13-T4S-R5W	North Reference:	True
Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,300.00	6.29	339.82	4,289.27	193.97	-71.30	206.66	0.00	0.00	0.00	
4,400.00	6.29	339.82	4,388.67	204.25	-75.09	217.62	0.00	0.00	0.00	
4,500.00	6.29	339.82	4,488.07	214.54	-78.87	228.58	0.00	0.00	0.00	
4,600.00	6.29	339.82	4,587.47	224.83	-82.65	239.53	0.00	0.00	0.00	
4,700.00	6.29	339.82	4,686.87	235.11	-86.43	250.49	0.00	0.00	0.00	
Start Drop -1.00										
4,783.73	6.29	339.82	4,770.09	243.72	-89.60	259.67	0.00	0.00	0.00	
4,800.00	6.13	339.82	4,786.27	245.38	-90.20	261.43	1.00	0.00	0.00	
4,900.00	5.13	339.82	4,885.78	254.58	-93.59	271.24	1.00	0.00	0.00	
5,000.00	4.13	339.82	4,985.45	262.16	-96.37	279.31	1.00	-1.00	0.00	
Douglas Creek										
5,036.63	3.76	339.82	5,022.00	264.52	-97.24	281.83	0.00	-1.00	0.00	
5,100.00	3.13	339.82	5,085.25	268.10	-98.56	285.64	1.00	-1.00	0.00	
5,200.00	2.13	339.82	5,185.15	272.40	-100.14	290.2	1.00	-1.00	0.00	
5,300.00	1.13	339.82	5,285.10	275.07	-101.12	294.18	1.00	-1.00	0.00	
5,400.00	0.13	339.82	5,385.10	276.10	-101.50	294.18	1.00	-1.00	0.00	
Start 2550.00 hold at 5412.90 MD - 3PT Marker - 14-13D-45 BTR Tgt										
5,412.90	0.00	0.00	5,398.00	276.11	-101.50	294.18	1.00	-1.00	0.00	
5,500.00	0.00	0.00	5,485.10	276.11	-101.50	294.18	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,585.10	276.11	-101.50	294.18	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,685.10	276.11	-101.50	294.18	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,785.10	276.11	-101.50	294.18	0.00	0.00	0.00	
Black Shale										
5,812.90	0.00	0.00	5,798.00	276.11	-101.50	294.18	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,885.10	276.11	-101.50	294.18	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,985.10	276.11	-101.50	294.18	0.00	0.00	0.00	
Castle Peak										
6,068.90	0.00	0.00	6,054.00	276.11	-101.50	294.18	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,085.10	276.11	-101.50	294.18	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,185.10	276.11	-101.50	294.18	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,285.10	276.11	-101.50	294.18	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,385.10	276.11	-101.50	294.18	0.00	0.00	0.00	
Uteland Butte										
6,440.90	0.00	0.00	6,426.00	276.11	-101.50	294.18	0.00	0.00	0.00	
CR1										
6,499.90	0.00	0.00	6,485.00	276.11	-101.50	294.18	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,485.10	276.11	-101.50	294.18	0.00	0.00	0.00	
CR1A Base										
6,540.90	0.00	0.00	6,526.00	276.11	-101.50	294.18	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,585.10	276.11	-101.50	294.18	0.00	0.00	0.00	
Wasatch										
6,673.90	0.00	0.00	6,659.00	276.11	-101.50	294.18	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,685.10	276.11	-101.50	294.18	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,785.10	276.11	-101.50	294.18	0.00	0.00	0.00	
CR2										
6,825.90	0.00	0.00	6,811.00	276.11	-101.50	294.18	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,885.10	276.11	-101.50	294.18	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,985.10	276.11	-101.50	294.18	0.00	0.00	0.00	
CR3										
7,073.90	0.00	0.00	7,059.00	276.11	-101.50	294.18	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,085.10	276.11	-101.50	294.18	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,185.10	276.11	-101.50	294.18	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,285.10	276.11	-101.50	294.18	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 6046.00usft
Project:	Duchesne Co., UT (NAD27)	MD Reference:	WELL @ 6046.00usft
Site:	Sec.13-T4S-R5W	North Reference:	True
Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,400.00	0.00	0.00	7,385.10	276.11	-101.50	294.18	0.00	0.00	0.00
7,500.00	0.00	0.00	7,485.10	276.11	-101.50	294.18	0.00	0.00	0.00
7,600.00	0.00	0.00	7,585.10	276.11	-101.50	294.18	0.00	0.00	0.00
CR4 - CR4A									
7,662.90	0.00	0.00	7,648.00	276.11	-101.50	294.18	0.00	0.00	0.00
7,700.00	0.00	0.00	7,685.10	276.11	-101.50	294.18	0.00	0.00	0.00
7,800.00	0.00	0.00	7,785.10	276.11	-101.50	294.18	0.00	0.00	0.00
CR5									
7,811.90	0.00	0.00	7,797.00	276.11	-101.50	294.18	0.00	0.00	0.00
7,900.00	0.00	0.00	7,885.10	276.11	-101.50	294.18	0.00	0.00	0.00
TD at 7962.90									
7,962.90	0.00	0.00	7,948.00	276.11	-101.50	294.18	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
14-13D-45 BTR Tgt	0.00	0.00	5,398.00	276.11	-101.50	655,654.640	2,307,492.985	40° 7' 41.740 N	110° 24' 1.058 W
- plan hits target center									
- Rectangle (sides W200.00 H200.00 D2,550.00)									

Casing Points									
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")					
2,000.00	2,000.00	9 5/8" Csg.	9-5/8	12-1/4					

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 6046.00usft
Project:	Duchesne Co., UT (NAD27)	MD Reference:	WELL @ 6046.00usft
Site:	Sec.13-T4S-R5W	North Reference:	True
Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,190.00	2,190.00	Green River		0.00	
2,999.89	2,997.00	Mahogany		0.00	
4,176.98	4,167.00	TGR3		0.00	
5,036.63	5,022.00	Douglas Creek		0.00	
5,412.90	5,398.00	3PT Marker		0.00	
5,812.90	5,798.00	Black Shale		0.00	
6,068.90	6,054.00	Castle Peak		0.00	
6,440.90	6,426.00	Uteland Butte		0.00	
6,499.90	6,485.00	CR1		0.00	
6,540.90	6,526.00	CR1A Base		0.00	
6,673.90	6,659.00	Wasatch		0.00	
6,825.90	6,811.00	CR2		0.00	
7,073.90	7,059.00	CR3		0.00	
7,662.90	7,648.00	CR4A		0.00	
7,662.90	7,648.00	CR4		0.00	
7,811.90	7,797.00	CR5		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,100.00	2,100.00	0.00	0.00	Start Build 1.00
2,729.17	2,727.00	32.39	-11.91	Start 2054.56 hold at 2729.17 MD
4,783.73	4,770.00	243.72	-89.60	Start Drop -1.00
5,412.90	5,398.00	276.11	-101.50	Start 2550.00 hold at 5412.90 MD
7,962.90	7,948.00	276.11	-101.50	TD at 7962.90



Bill Barrett Corporation

Bill Barrett Corp.

Duchesne Co., UT (NAD27)

Sec.13-T4S-R5W

#14-13D-45 BTR

Wellbore #1

Design #1

Anticollision Report

07 June, 2012

Returned Unapproved



Sharewell
Energy Services

Received: June 21, 2012

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Project:	Duchesne Co., UT (NAD27)	TVD Reference:	WELL @ 6046.00usft
Reference Site:	Sec.13-T4S-R5W	MD Reference:	WELL @ 6046.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	06/07/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	7,962.90	Design #1 (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec.13-T4S-R5W						
#13H-13-45 BTR - Wellbore #1 - Design #1	6,044.93	8,771.73	105.72	23.94	1.293	Level 3, CC, ES, SF
#16-13D-45 BTR - Wellbore #1 - Design #1	2,110.00	2,111.00	2,323.95	2,314.74	252.427	CC
#16-13D-45 BTR - Wellbore #1 - Design #1	2,200.00	2,210.99	2,324.21	2,314.55	240.738	ES
#16-13D-45 BTR - Wellbore #1 - Design #1	7,962.90	7,964.70	2,466.06	2,430.25	68.864	SF

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	12.00	12.00	0.00	0.01	87.43	104.28	2,320.87	2,323.21					
100.00	100.00	112.00	112.00	0.10	0.12	87.43	104.28	2,320.87	2,323.21	2,322.99	0.22	N/A		
200.00	200.00	212.00	212.00	0.32	0.35	87.43	104.28	2,320.87	2,323.21	2,322.54	0.67	3,480.177		
300.00	300.00	312.00	312.00	0.55	0.57	87.43	104.28	2,320.87	2,323.21	2,322.09	1.12	2,079.704		
400.00	400.00	412.00	412.00	0.77	0.80	87.43	104.28	2,320.87	2,323.21	2,321.64	1.57	1,482.945		
500.00	500.00	512.00	512.00	0.99	1.02	87.43	104.28	2,320.87	2,323.21	2,321.19	2.02	1,152.300		
600.00	600.00	612.00	612.00	1.22	1.25	87.43	104.28	2,320.87	2,323.21	2,320.75	2.47	942.218		
700.00	700.00	712.00	712.00	1.44	1.47	87.43	104.28	2,320.87	2,323.21	2,320.30	2.92	796.926		
800.00	800.00	812.00	812.00	1.67	1.70	87.43	104.28	2,320.87	2,323.21	2,319.85	3.36	690.456		
900.00	900.00	912.00	912.00	1.89	1.92	87.43	104.28	2,320.87	2,323.21	2,319.40	3.81	609.082		
1,000.00	1,000.00	1,012.00	1,012.00	2.12	2.15	87.43	104.28	2,320.87	2,323.21	2,318.95	4.26	544.867		
1,100.00	1,100.00	1,112.00	1,112.00	2.34	2.37	87.43	104.28	2,320.87	2,323.21	2,318.50	4.71	492.901		
1,200.00	1,200.00	1,212.00	1,212.00	2.57	2.59	87.43	104.28	2,320.87	2,323.21	2,318.05	5.16	449.984		
1,300.00	1,300.00	1,312.00	1,312.00	2.79	2.82	87.43	104.28	2,320.87	2,323.21	2,317.60	5.61	413.942		
1,400.00	1,400.00	1,412.00	1,412.00	3.02	3.04	87.43	104.28	2,320.87	2,323.21	2,317.15	6.06	383.245		
1,500.00	1,500.00	1,512.00	1,512.00	3.24	3.27	87.43	104.28	2,320.87	2,323.21	2,316.70	6.51	356.787		
1,600.00	1,600.00	1,612.00	1,612.00	3.47	3.49	87.43	104.28	2,320.87	2,323.21	2,316.25	6.96	333.747		
1,700.00	1,700.00	1,712.00	1,712.00	3.69	3.72	87.43	104.28	2,320.87	2,323.21	2,315.80	7.41	313.501		
1,800.00	1,800.00	1,812.00	1,812.00	3.92	3.94	87.43	104.28	2,320.87	2,323.21	2,315.35	7.86	295.571		
1,900.00	1,900.00	1,912.00	1,912.00	4.14	4.17	87.43	104.28	2,320.87	2,323.21	2,314.90	8.31	279.582		
2,000.00	2,000.00	2,012.00	2,012.00	4.37	4.39	87.43	104.28	2,320.87	2,323.21	2,314.45	8.76	265.233		
2,100.00	2,100.00	2,112.00	2,112.00	4.59	4.62	87.43	104.28	2,320.87	2,323.21	2,314.00	9.21	252.285		
2,200.00	2,199.99	2,211.99	2,211.99	4.81	4.84	107.63	104.28	2,320.87	2,323.48	2,313.82	9.66	240.606		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Project:	Duchesne Co., UT (NAD27)	TVD Reference:	WELL @ 6046.00usft
Reference Site:	Sec.13-T4S-R5W	MD Reference:	WELL @ 6046.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,300.00	2,299.96	2,311.96	2,311.96	5.04	5.07	107.68	104.28	2,320.87	2,324.27	2,314.17	10.10	230.055		
2,400.00	2,399.86	2,411.86	2,411.86	5.26	5.29	107.77	104.28	2,320.87	2,325.60	2,315.05	10.55	220.451		
2,500.00	2,499.68	2,511.68	2,511.68	5.49	5.52	107.90	104.28	2,320.87	2,327.47	2,316.48	11.00	211.661		
2,600.00	2,599.37	2,611.37	2,611.37	5.72	5.74	108.06	104.28	2,320.87	2,329.90	2,318.45	11.45	203.568		
2,700.00	2,698.90	2,710.90	2,710.90	5.95	5.96	108.25	104.28	2,320.87	2,332.90	2,321.00	11.90	196.073		
2,729.17	2,727.91	2,739.91	2,739.91	6.02	6.03	108.32	104.28	2,320.87	2,333.88	2,321.85	12.03	193.987		
2,800.00	2,798.31	2,810.31	2,810.31	6.19	6.19	108.49	104.28	2,320.87	2,336.35	2,323.99	12.36	189.061		
2,900.00	2,897.71	2,909.71	2,909.71	6.43	6.41	108.75	104.28	2,320.87	2,339.87	2,327.05	12.82	182.398		
3,000.00	2,997.11	3,009.11	3,009.11	6.68	6.63	109.00	104.28	2,320.87	2,343.43	2,330.14	13.29	176.336		
3,100.00	3,096.50	3,108.50	3,108.50	6.93	6.86	109.25	104.28	2,320.87	2,347.04	2,333.28	13.77	170.554		
3,200.00	3,195.90	3,207.90	3,207.90	7.19	7.08	109.50	104.28	2,320.87	2,350.70	2,336.55	14.24	165.121		
3,300.00	3,295.30	3,307.30	3,307.30	7.45	7.30	109.75	104.28	2,320.87	2,354.40	2,339.88	14.71	160.013		
3,400.00	3,394.70	3,406.70	3,406.70	7.71	7.53	110.00	104.28	2,320.87	2,358.15	2,343.23	15.19	155.203		
3,500.00	3,494.09	3,506.09	3,506.09	7.98	7.75	110.25	104.28	2,320.87	2,361.95	2,346.26	15.68	150.670		
3,600.00	3,593.49	3,605.49	3,605.49	8.25	7.97	110.50	104.28	2,320.87	2,365.77	2,349.61	16.16	146.392		
3,700.00	3,692.89	3,704.89	3,704.89	8.52	8.20	110.75	104.28	2,320.87	2,369.65	2,353.00	16.65	142.352		
3,800.00	3,792.29	3,804.29	3,804.29	8.79	8.42	110.99	104.28	2,320.87	2,373.58	2,356.44	17.13	138.531		
3,900.00	3,891.68	3,903.68	3,903.68	9.06	8.64	111.24	104.28	2,320.87	2,377.54	2,359.92	17.62	134.913		
4,000.00	3,991.08	4,003.08	4,003.08	9.34	8.87	111.48	104.28	2,320.87	2,381.56	2,363.44	18.11	131.484		
4,100.00	4,090.48	4,102.48	4,102.48	9.61	9.09	111.73	104.28	2,320.87	2,385.61	2,367.01	18.60	128.231		
4,200.00	4,189.88	4,201.88	4,201.88	9.89	9.34	111.97	170.40	-101.94	2,320.44	2,245.72	74.72	31.056		
4,300.00	4,289.28	4,301.28	4,301.28	10.17	9.56	112.22	170.40	-104.25	2,221.08	2,145.94	75.14	29.558		
4,400.00	4,388.67	4,400.67	4,400.67	10.45	9.79	112.46	170.40	-106.55	2,121.79	2,046.22	75.57	28.078		
4,500.00	4,488.07	4,500.07	4,500.07	10.73	10.03	112.70	170.40	-108.86	2,022.56	1,946.57	75.99	26.618		
4,600.00	4,587.47	4,600.47	4,600.47	11.01	10.27	112.94	170.40	-111.16	1,923.40	1,847.00	76.40	25.175		
4,700.00	4,686.87	4,700.87	4,700.87	11.30	10.52	113.18	170.40	-113.47	1,824.34	1,747.52	76.81	23.750		
4,783.73	4,770.00	4,785.60	4,785.60	11.54	10.78	113.42	170.40	-115.40	1,741.47	1,664.31	77.16	22.571		
4,800.00	4,786.20	4,798.00	4,798.00	11.58	10.79	113.46	170.40	-115.77	1,725.37	1,648.09	77.28	22.326		
4,900.00	4,885.78	4,897.58	4,897.58	11.80	10.84	113.66	170.40	-117.67	1,626.37	1,548.38	77.98	20.855		
5,000.00	4,985.46	5,000.21	5,000.21	12.01	10.88	113.86	170.40	-118.98	1,527.24	1,448.63	78.61	19.428		
5,100.00	5,085.25	5,099.92	5,099.92	12.21	10.90	114.06	170.40	-119.68	1,428.01	1,348.88	79.13	18.046		
5,200.00	5,185.15	5,199.02	5,199.02	12.40	10.90	114.26	170.40	-119.78	1,328.68	1,249.18	79.50	16.714		
5,300.00	5,285.11	5,298.51	5,298.51	12.58	10.89	114.46	170.40	-119.28	1,229.26	1,149.62	79.64	15.435		
5,400.00	5,385.10	5,398.41	5,398.41	12.75	10.86	114.66	170.40	-118.17	1,129.76	1,050.30	79.47	14.217		
5,412.90	5,398.00	5,412.22	5,412.22	12.77	10.85	114.68	170.40	-117.99	1,116.92	1,037.51	79.41	14.065		
5,500.00	5,485.10	5,498.93	5,498.93	12.93	10.82	114.82	170.40	-116.70	1,030.26	950.63	79.63	12.938		
5,600.00	5,585.10	5,598.45	5,598.45	13.14	10.78	114.96	170.40	-115.21	930.85	850.96	79.89	11.651		
5,700.00	5,685.10	5,698.96	5,698.96	13.34	10.74	115.10	170.40	-113.73	831.59	751.44	80.15	10.376		
5,800.00	5,785.10	5,798.48	5,798.48	13.54	10.70	115.24	170.40	-112.25	732.52	652.14	80.39	9.113		
5,900.00	5,885.10	5,898.00	5,898.00	13.75	10.66	115.38	170.40	-110.76	633.74	553.13	80.61	7.861		
6,000.00	5,985.10	5,998.51	5,998.51	13.96	10.62	115.52	170.40	-109.28	535.42	454.58	80.83	6.624		
6,100.00	6,085.10	6,098.03	6,098.03	14.16	10.58	115.66	170.40	-107.80	437.84	356.80	81.04	5.403		
6,200.00	6,185.10	6,197.55	6,197.55	14.37	10.54	115.80	170.40	-106.31	341.66	260.44	81.23	4.206		
6,300.00	6,285.10	6,297.06	6,297.06	14.58	10.50	115.94	170.40	-104.83	248.51	167.11	81.41	3.053		
6,400.00	6,385.10	6,396.58	6,396.58	14.78	10.46	116.08	170.40	-103.35	163.65	82.07	81.58	2.006		
6,500.00	6,485.10	6,497.10	6,497.10	14.99	10.42	116.22	170.40	-101.86	108.62	26.88	81.73	1.329 Level 3		
6,524.93	6,510.03	6,524.03	6,524.03	15.05	10.41	116.24	170.40	-101.49	105.72	23.94	81.77	1.293 Level 3, CC, ES, SF		
6,600.00	6,585.10	6,597.61	6,597.61	15.20	10.37	116.38	170.40	-100.38	129.65	47.77	81.88	1.583		
6,700.00	6,685.10	6,697.13	6,697.13	15.41	10.33	116.52	170.40	-98.90	204.49	122.48	82.01	2.493		
6,800.00	6,785.10	6,796.65	6,796.65	15.62	10.29	116.66	170.40	-97.41	294.65	212.52	82.13	3.588		
6,900.00	6,885.10	6,896.16	6,896.16	15.83	10.25	116.80	170.40	-95.93	389.64	307.40	82.24	4.738		
7,000.00	6,985.10	7,000.68	7,000.68	16.04	10.21	116.94	170.40	-94.45	486.64	404.30	82.34	5.910		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Project:	Duchesne Co., UT (NAD27)	TVD Reference:	WELL @ 6046.00usft
Reference Site:	Sec.13-T4S-R5W	MD Reference:	WELL @ 6046.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Sec.13-T4S-R5W - #13H-13-45 BTR - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.00	7,085.10	8,763.20	6,522.16	16.25	67.17	175.38	170.40	-92.96	584.64	502.22	82.42	7.093	
7,200.00	7,185.10	8,761.71	6,522.18	16.47	67.13	174.58	170.40	-91.48	683.22	600.72	82.50	8.282	
7,300.00	7,285.10	8,760.23	6,522.20	16.68	67.09	173.79	170.40	-90.00	782.16	699.60	82.56	9.474	
7,400.00	7,385.10	8,758.75	6,522.22	16.89	67.05	172.99	170.40	-88.51	881.33	798.72	82.61	10.668	
7,500.00	7,485.10	8,757.26	6,522.25	17.10	67.01	172.20	170.40	-87.03	980.67	898.02	82.65	11.865	
7,600.00	7,585.10	8,755.78	6,522.27	17.31	66.97	171.42	170.40	-85.55	1,080.13	997.45	82.68	13.064	
7,700.00	7,685.10	8,754.30	6,522.29	17.53	66.93	170.63	170.40	-84.06	1,179.68	1,096.98	82.70	14.261	
7,800.00	7,785.10	8,752.81	6,522.31	17.74	66.89	169.85	170.40	-82.58	1,279.30	1,196.59	82.71	15.457	
7,900.00	7,885.10	8,751.33	6,522.33	17.96	66.85	169.07	170.40	-81.10	1,378.97	1,296.27	82.71	16.673	
7,962.90	7,948.00	8,750.40	6,522.35	18.09	66.83	168.59	170.40	-80.16	1,441.69	1,358.99	82.71	17.432	

Returned Unapproved

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Project:	Duchesne Co., UT (NAD27)	TVD Reference:	WELL @ 6046.00usft
Reference Site:	Sec.13-T4S-R5W	MD Reference:	WELL @ 6046.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.00	0.00	11.00	11.00	0.00	0.01	87.05	119.58	2,320.87	2,323.95					
100.00	100.00	111.00	111.00	0.10	0.12	87.05	119.58	2,320.87	2,323.95	2,323.73	0.22	N/A		
200.00	200.00	211.00	211.00	0.32	0.35	87.05	119.58	2,320.87	2,323.95	2,323.28	0.67	3,493.040		
300.00	300.00	311.00	311.00	0.55	0.57	87.05	119.58	2,320.87	2,323.95	2,322.83	1.11	2,084.556		
400.00	400.00	411.00	411.00	0.77	0.79	87.05	119.58	2,320.87	2,323.95	2,322.38	1.56	1,485.546		
500.00	500.00	511.00	511.00	0.99	1.02	87.05	119.58	2,320.87	2,323.95	2,321.93	2.01	1,153.951		
600.00	600.00	611.00	611.00	1.22	1.24	87.05	119.58	2,320.87	2,323.95	2,321.48	2.46	943.37		
700.00	700.00	711.00	711.00	1.44	1.47	87.05	119.58	2,320.87	2,323.95	2,321.03	2.91	677.93		
800.00	800.00	811.00	811.00	1.67	1.69	87.05	119.58	2,320.87	2,323.95	2,320.58	3.36	414.136		
900.00	900.00	911.00	911.00	1.89	1.92	87.05	119.58	2,320.87	2,323.95	2,320.13	3.81	609.635		
1,000.00	1,000.00	1,011.00	1,011.00	2.12	2.14	87.05	119.58	2,320.87	2,323.95	2,319.68	4.26	545.327		
1,100.00	1,100.00	1,111.00	1,111.00	2.34	2.37	87.05	119.58	2,320.87	2,323.95	2,319.24	4.71	493.292		
1,200.00	1,200.00	1,211.00	1,211.00	2.57	2.59	87.05	119.58	2,320.87	2,323.95	2,318.79	5.16	450.322		
1,300.00	1,300.00	1,311.00	1,311.00	2.79	2.82	87.05	119.58	2,320.87	2,323.95	2,318.34	5.61	414.239		
1,400.00	1,400.00	1,411.00	1,411.00	3.02	3.04	87.05	119.58	2,320.87	2,323.95	2,317.89	6.06	383.509		
1,500.00	1,500.00	1,511.00	1,511.00	3.24	3.27	87.05	119.58	2,320.87	2,323.95	2,317.44	6.51	357.024		
1,600.00	1,600.00	1,611.00	1,611.00	3.47	3.49	87.05	119.58	2,320.87	2,323.95	2,316.99	6.96	333.960		
1,700.00	1,700.00	1,711.00	1,711.00	3.69	3.72	87.05	119.58	2,320.87	2,323.95	2,316.54	7.41	313.695		
1,800.00	1,800.00	1,811.00	1,811.00	3.92	3.94	87.05	119.58	2,320.87	2,323.95	2,316.09	7.86	295.749		
1,900.00	1,900.00	1,911.00	1,911.00	4.14	4.17	87.05	119.58	2,320.87	2,323.95	2,315.64	8.31	279.746		
2,000.00	2,000.00	2,011.00	2,011.00	4.37	4.39	87.05	119.58	2,320.87	2,323.95	2,315.19	8.76	265.385		
2,100.00	2,100.00	2,111.00	2,111.00	4.59	4.62	87.05	119.58	2,320.87	2,323.95	2,314.74	9.21	252.427 CC		
2,200.00	2,199.99	2,210.99	2,210.99	4.81	4.84	107.25	119.58	2,320.87	2,324.21	2,314.55	9.65	240.738 ES		
2,300.00	2,299.96	2,310.96	2,310.96	5.04	5.07	107.31	119.58	2,320.87	2,324.98	2,314.88	10.10	230.176		
2,400.00	2,399.86	2,409.25	2,409.25	5.26	5.29	107.39	119.59	2,320.87	2,326.29	2,315.75	10.54	220.640		
2,500.00	2,499.68	2,500.00	2,500.00	5.49	5.49	107.47	120.85	2,321.18	2,328.52	2,317.55	10.97	212.282		
2,600.00	2,599.21	2,599.45	2,599.45	5.72	5.67	107.52	123.68	2,321.88	2,331.89	2,320.52	11.37	205.076		
2,700.00	2,698.90	2,697.97	2,697.97	5.95	5.87	107.56	128.64	2,323.10	2,336.42	2,324.62	11.80	198.050		
2,729.17	2,727.91	2,697.08	2,696.81	6.02	5.93	107.57	130.46	2,323.55	2,337.89	2,325.96	11.93	195.968		
2,800.00	2,798.31	2,767.75	2,767.33	6.19	6.09	107.65	134.87	2,324.63	2,341.53	2,329.27	12.26	191.044		
2,900.00	2,897.71	2,867.53	2,866.90	6.43	6.32	107.75	141.10	2,326.17	2,346.68	2,333.95	12.72	184.448		
3,000.00	2,997.11	2,967.30	2,966.47	6.68	6.54	107.85	147.32	2,327.70	2,351.83	2,338.63	13.19	178.240		
3,100.00	3,096.50	3,067.08	3,066.04	6.93	6.77	107.96	153.55	2,329.23	2,356.99	2,343.32	13.67	172.395		
3,200.00	3,195.90	3,166.86	3,165.61	7.19	7.00	108.06	159.77	2,330.77	2,362.16	2,348.00	14.15	166.889		
3,300.00	3,295.30	3,266.63	3,265.18	7.45	7.23	108.16	166.00	2,332.30	2,367.33	2,352.69	14.64	161.701		
3,400.00	3,394.70	3,366.41	3,364.75	7.71	7.46	108.27	172.23	2,333.83	2,372.52	2,357.39	15.13	156.807		
3,500.00	3,494.09	3,466.18	3,464.32	7.98	7.70	108.37	178.45	2,335.37	2,377.71	2,362.09	15.62	152.188		
3,600.00	3,593.49	3,565.96	3,563.89	8.25	7.93	108.47	184.68	2,336.90	2,382.91	2,366.79	16.12	147.823		
3,700.00	3,692.89	3,665.74	3,663.46	8.52	8.17	108.57	190.90	2,338.43	2,388.11	2,371.49	16.62	143.696		
3,800.00	3,792.29	3,765.51	3,763.03	8.79	8.40	108.67	197.13	2,339.97	2,393.33	2,376.21	17.12	139.789		
3,900.00	3,891.68	3,865.29	3,862.60	9.06	8.64	108.77	203.36	2,341.50	2,398.55	2,380.92	17.63	136.088		
4,000.00	3,991.08	3,965.06	3,962.17	9.34	8.88	108.87	209.58	2,343.03	2,403.78	2,385.64	18.13	132.577		
4,100.00	4,090.48	4,064.84	4,061.74	9.61	9.12	108.97	215.81	2,344.57	2,409.01	2,390.37	18.64	129.244		
4,200.00	4,189.88	4,164.62	4,161.31	9.89	9.36	109.07	222.03	2,346.10	2,414.25	2,395.10	19.15	126.077		
4,300.00	4,289.28	4,264.39	4,260.88	10.17	9.60	109.17	228.26	2,347.63	2,419.50	2,399.84	19.66	123.064		
4,400.00	4,388.67	4,364.17	4,360.45	10.45	9.84	109.26	234.49	2,349.17	2,424.76	2,404.59	20.17	120.195		
4,500.00	4,488.07	4,463.94	4,460.02	10.73	10.08	109.36	240.71	2,350.70	2,430.02	2,409.34	20.69	117.462		
4,600.00	4,587.47	4,563.72	4,559.59	11.02	10.32	109.46	246.94	2,352.24	2,435.29	2,414.09	21.20	114.854		
4,700.00	4,686.87	4,663.50	4,659.16	11.30	10.56	109.56	253.16	2,353.77	2,440.57	2,418.85	21.72	112.365		
4,783.73	4,770.09	4,747.04	4,742.53	11.54	10.77	109.64	258.38	2,355.05	2,445.00	2,422.84	22.15	110.366		
4,800.00	4,786.27	4,763.27	4,758.73	11.58	10.81	109.66	259.39	2,355.30	2,445.85	2,423.61	22.23	110.007		
4,900.00	4,885.78	4,863.11	4,858.35	11.80	11.05	109.78	265.62	2,356.84	2,450.75	2,428.06	22.69	107.991		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

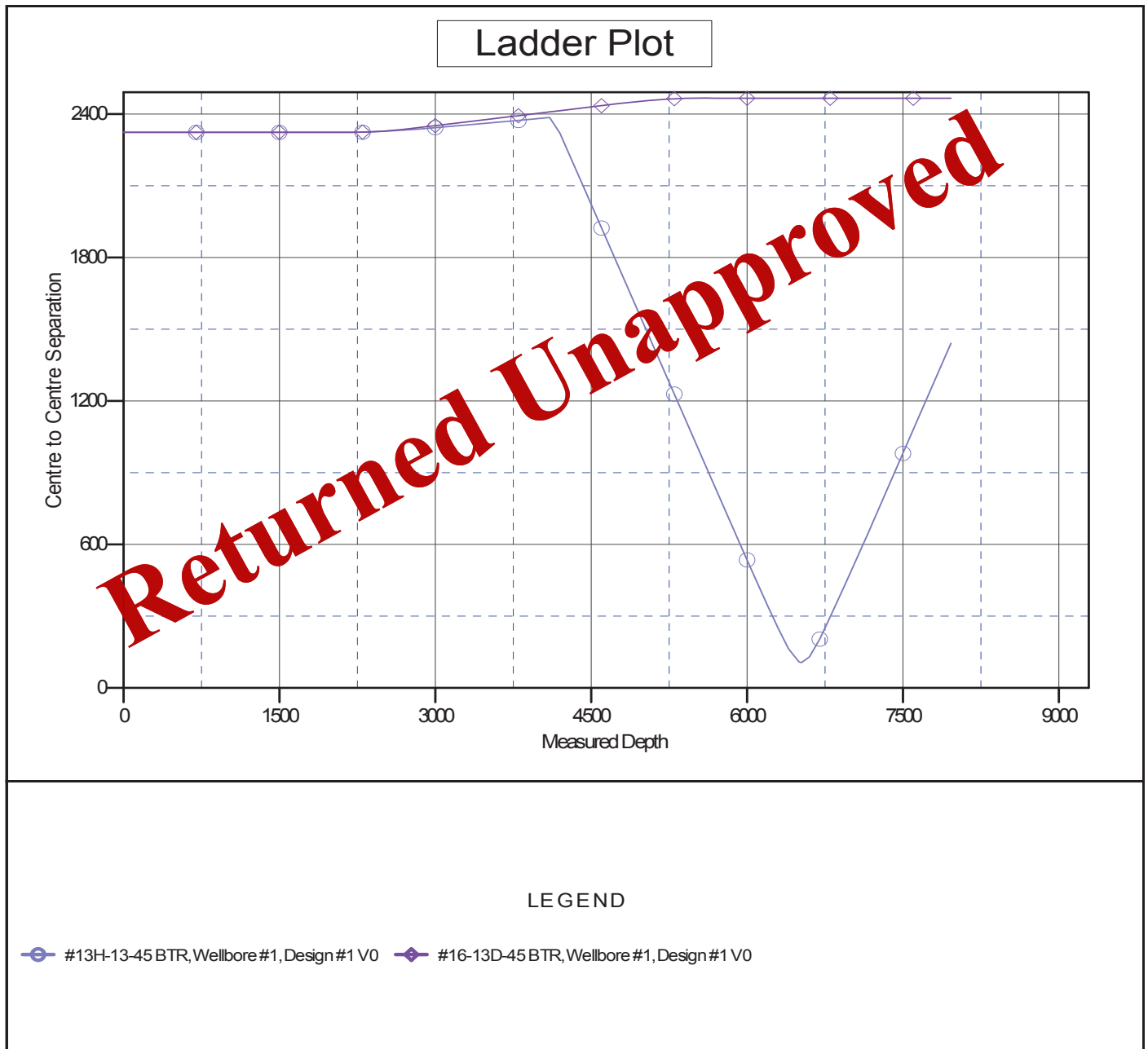
Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Project:	Duchesne Co., UT (NAD27)	TVD Reference:	WELL @ 6046.00usft
Reference Site:	Sec.13-T4S-R5W	MD Reference:	WELL @ 6046.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,985.46	4,963.00	4,958.04	12.01	11.29	109.85	271.85	2,358.37	2,455.06	2,431.92	23.15	106.065	
5,100.00	5,085.25	5,062.93	5,057.77	12.21	11.54	109.88	278.09	2,359.91	2,458.78	2,435.19	23.59	104.226	
5,200.00	5,185.15	5,162.86	5,157.49	12.40	11.78	109.86	284.32	2,361.44	2,461.91	2,437.89	24.03	102.468	
5,300.00	5,285.11	5,267.61	5,262.03	12.58	12.03	109.80	290.74	2,363.02	2,464.43	2,439.97	24.45	100.775	
5,400.00	5,385.10	5,386.45	5,380.76	12.75	12.25	109.73	295.44	2,364.18	2,465.80	2,440.95	24.85	99.219	
5,412.90	5,398.00	5,401.79	5,396.10	12.77	12.28	89.54	295.79	2,364.27	2,465.88	2,440.98	24.90	99.027	
5,500.00	5,485.10	5,501.79	5,496.10	12.93	12.45	89.52	296.62	2,364.47	2,466.06	2,440.82	25.24	97.711	
5,600.00	5,585.10	5,601.79	5,596.10	13.14	12.67	89.52	296.62	2,364.47	2,466.06	2,440.40	25.66	96.397	
5,700.00	5,685.10	5,701.79	5,696.10	13.34	12.89	89.52	296.62	2,364.47	2,466.06	2,439.98	26.06	95.152	
5,800.00	5,785.10	5,801.79	5,796.10	13.54	13.10	89.52	296.62	2,364.47	2,466.06	2,439.56	26.45	93.943	
5,900.00	5,885.10	5,901.79	5,896.10	13.75	13.32	89.52	296.62	2,364.47	2,466.06	2,439.15	26.83	91.578	
6,000.00	5,985.10	6,001.79	5,996.10	13.96	13.54	89.52	296.62	2,364.47	2,466.06	2,438.71	27.35	90.157	
6,100.00	6,085.10	6,101.79	6,096.10	14.16	13.75	89.52	296.62	2,364.47	2,466.06	2,438.25	27.78	88.776	
6,200.00	6,185.10	6,201.79	6,196.10	14.37	13.97	89.52	296.62	2,364.47	2,466.06	2,437.86	28.20	87.435	
6,300.00	6,285.10	6,301.79	6,296.10	14.58	14.19	89.52	296.62	2,364.47	2,466.06	2,437.43	28.63	86.131	
6,400.00	6,385.10	6,401.79	6,396.10	14.78	14.41	89.52	296.62	2,364.47	2,466.06	2,437.00	29.06	84.864	
6,500.00	6,485.10	6,501.79	6,496.10	14.99	14.63	89.52	296.62	2,364.47	2,466.06	2,436.57	29.49	83.631	
6,600.00	6,585.10	6,601.79	6,596.10	15.20	14.85	89.52	296.62	2,364.47	2,466.06	2,436.14	29.92	82.433	
6,700.00	6,685.10	6,701.79	6,696.10	15.41	15.06	89.52	296.62	2,364.47	2,466.06	2,435.71	30.35	81.266	
6,800.00	6,785.10	6,801.79	6,796.10	15.62	15.28	89.52	296.62	2,364.47	2,466.06	2,435.28	30.78	80.131	
6,900.00	6,885.10	6,901.79	6,896.10	15.83	15.50	89.52	296.62	2,364.47	2,466.06	2,434.85	31.21	79.025	
7,000.00	6,985.10	7,001.79	6,996.10	16.04	15.72	89.52	296.62	2,364.47	2,466.06	2,434.42	31.64	77.949	
7,100.00	7,085.10	7,101.79	7,096.10	16.25	15.94	89.52	296.62	2,364.47	2,466.06	2,433.99	32.07	76.900	
7,200.00	7,185.10	7,201.79	7,196.10	16.47	16.16	89.52	296.62	2,364.47	2,466.06	2,433.56	32.50	75.877	
7,300.00	7,285.10	7,301.79	7,296.10	16.68	16.38	89.52	296.62	2,364.47	2,466.06	2,433.13	32.93	74.881	
7,400.00	7,385.10	7,401.79	7,396.10	16.89	16.60	89.52	296.62	2,364.47	2,466.06	2,432.69	33.37	73.909	
7,500.00	7,485.10	7,501.79	7,496.10	17.10	16.82	89.52	296.62	2,364.47	2,466.06	2,432.26	33.80	72.962	
7,600.00	7,585.10	7,601.79	7,596.10	17.31	17.04	89.52	296.62	2,364.47	2,466.06	2,431.83	34.23	72.037	
7,700.00	7,685.10	7,701.79	7,696.10	17.53	17.26	89.52	296.62	2,364.47	2,466.06	2,431.39	34.67	71.135	
7,800.00	7,785.10	7,801.79	7,796.10	17.74	17.48	89.52	296.62	2,364.47	2,466.06	2,430.96	35.10	70.254	
7,900.00	7,885.10	7,901.79	7,896.10	17.96	17.70	89.52	296.62	2,364.47	2,466.06	2,430.52	35.54	69.394	
7,962.90	7,948.00	7,964.70	7,959.00	18.09	17.84	89.52	296.62	2,364.47	2,466.06	2,430.25	35.81	68.864 SF	

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Project:	Duchesne Co., UT (NAD27)	TVD Reference:	WELL @ 6046.00usft
Reference Site:	Sec.13-T4S-R5W	MD Reference:	WELL @ 6046.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 6046.00usft
Offset Depths are relative to Offset Datum
Central Meridian is 111° 30' 0.000 W

Coordinates are relative to: #14-13D-45 BTR
Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302
Grid Convergence at Surface is: 0.70°

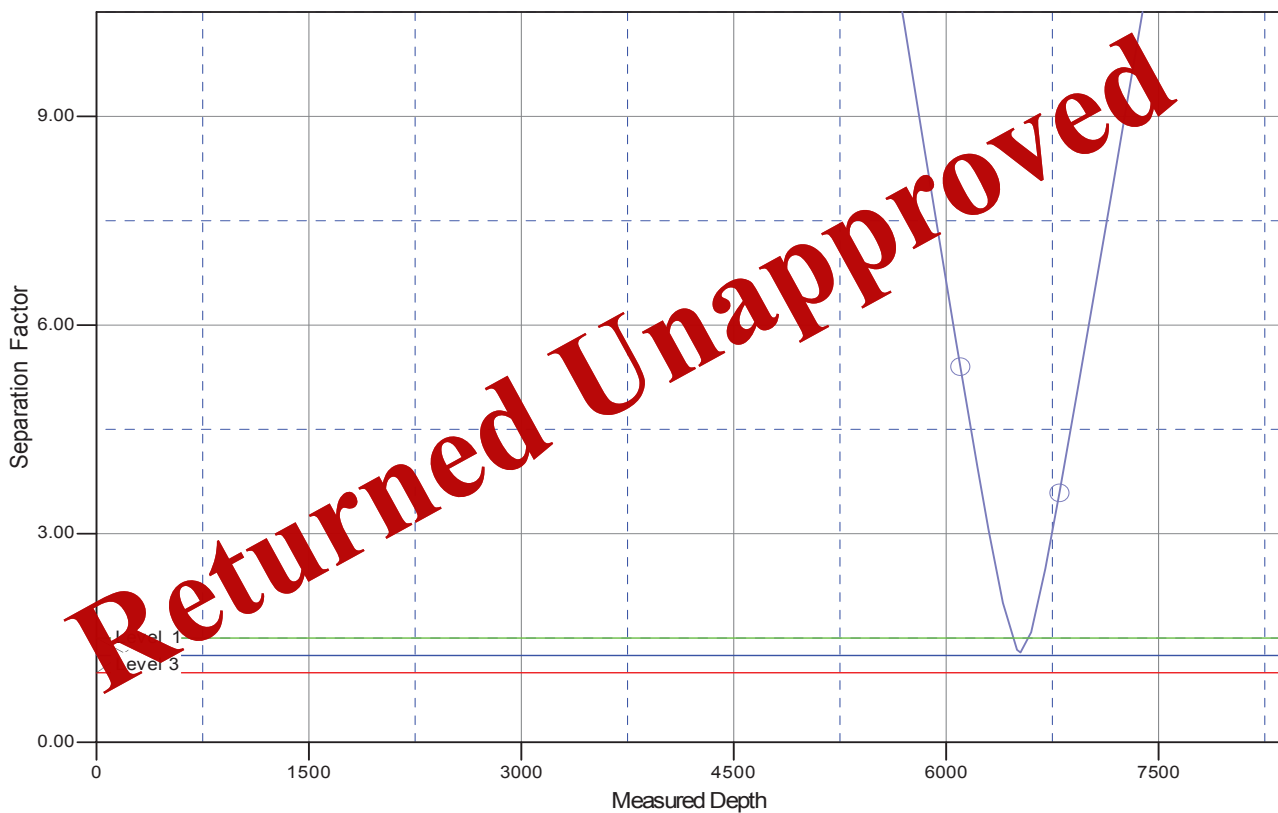


Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well #14-13D-45 BTR
Project:	Duchesne Co., UT (NAD27)	TVD Reference:	WELL @ 6046.00usft
Reference Site:	Sec.13-T4S-R5W	MD Reference:	WELL @ 6046.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	#14-13D-45 BTR	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 6046.00usft
Offset Depths are relative to Offset Datum
Central Meridian is 111° 30' 0.000 W

Coordinates are relative to: #14-13D-45 BTR
Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302
Grid Convergence at Surface is: 0.70°

Separation Factor Plot



LEGEND

—○— #13H-13-45 BTR, Wellbore #1, Design #1 V0 —◆— #16-13D-45 BTR, Wellbore #1, Design #1 V0

SURFACE USE PLAN

BILL BARRETT CORPORATION

14-13D-45 BTR

SE SW, 532' FSL and 2080' FWL, Section 13, T4S-R5W (surface hole)

SE SW, 810' FSL and 1980' FWL, Section 13, T4S-R5W (bottom hole)

Duchesne County, Utah

The onsite inspection for this pad occurred on February 1, 2012. This is a new pad with one proposed well. Plat changes and site specific stipulations requested at the onsite are reflected within this APD and summarized below.

- a) Relocated topsoil from corners 7 & 8 area to corners 3 & 4 area, omitted topsoil from corners C & 6 area to maximize interim reclamation and minimize topsoil loss;
- b) Shorten trailer side of the pad area 10 feet to minimize fill slopes;

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

1. **Existing Roads:**

- a. The proposed well site is located approximately 4.3 miles south of Duchesne, Utah. Maps and directions reflecting the route to the proposed well site are included (see Topographic maps A and B).
- b. The existing State maintained Highway 191 would be utilized from Duchesne for 2.3 miles to the existing Duchesne County maintained Sowers Canyon Road. The Sowers Canyon Road would be utilized for 1.9 miles to the planned new access road.
- c. Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a motor grader and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.
- d. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.
- e. The use of roads under Utah State and Duchesne County maintenance are necessary to access the project area with no improvements proposed. A Duchesne County Road Department access will be obtained.

- f. All existing roads would be maintained and kept in good repair during all phases of operation.

2. Planned Access Road:

- a. Approximately 254 feet of new access road is planned from the Duchesne County maintained Sowers Canyon road (see Topographic Map B). The proposed access road crosses entirely Ute Tribe surface.
- b. The planned access road would be constructed to a 30-foot ROW width with an 18-foot travel surface. See section 12.d. below for disturbance estimates.
- c. New road construction and improvements of existing roads would typically require the use of motor graders, crawler tractors, 10-yard end dump trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader or bulldozer to establish barrow ditches and crown the road surface. Where culverts are required, a track hoe or backhoe would trench the road and install the culverts. Some hand labor would be required when installing and armoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the running surface.
- d. The proposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No unnecessary side-casting of material would occur on steep slopes. A maximum grade of 10% would be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.
- f. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private or State of Utah lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.
- g. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the disturbed area would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.
- h. Turnouts are not proposed.

- i. No culverts and no low-water crossings are anticipated. Adequate drainage structures, where necessary, would be incorporated into the remainder of the road to prevent soil erosion and accommodate all-weather traffic.
- j. No gates or cattle guards are anticipated at this time.
- k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
- l. All access roads and surface disturbing activities would conform to the appropriate standard, **no higher than necessary**, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition – Revised 2007.
- m. The operator would be responsible for all maintenance needs of the new access road.

3. Location of Existing Wells (see One-Mile Radius Map)

- a. Following is a list of wells with approximate locations within a one-mile radius of the proposed pad:
 - i. water well none
 - ii. injection wells none
 - iii. disposal wells none
 - iv. drilling wells none
 - v. temp shut-in wells none
 - vi. producing wells none
 - vii. abandoned wells three

4. Location of Production Facilities

- a. Surface facilities would consist of a wellhead, separator, gas meter, combustor, (1) 500 gal methanol tank, (1) 500 glycol tank, (3) 500 bbl oil tanks, (1) 500 bbl water tank, (1) 500 bbl test tank, (1) 1000 gal propane tank, a pumping unit or Roto-flex unit or ESP or gas lift unit, electrical or with a natural gas or diesel fired motor, solar panels, solar chemical and methanol pumps and one trace pump. See attached proposed facility diagram.
- b. Most wells would be fitted with a pump jack or Roto-flex unit or ESP or gas lift to assist liquid production. The prime mover for pump jacks or Roto-flex units would be small (100 horsepower or less), electric motor or natural gas or diesel fired internal combustion engines. If a gas lift is installed, it would be set on a 10 ft x 25 ft pad and the prime mover would be a natural gas-fired internal combustion engine rated at 200 horsepower or less or an electric compressor of similar horsepower powered by electricity.

- c. The tank battery would be surrounded by a secondary containment berm of sufficient capacity to contain 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the tank battery or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil.
- d. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- e. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 27 ft tall. Combustor placement would be on existing disturbance.
- f. Approximately 2,979 feet of pipeline corridor containing up to three lines (one gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter) is proposed traversing west to the proposed 16-14D-45 BTR pipeline corridor. The proposed 16-14D-45 BTR pipeline corridor continues an additional 6,763 feet west to an existing BBC maintained pipeline corridor (see Topographic Map C). Pipelines would be constructed of steel, polyethylene or fiberglass and would connect to the proposed pipeline servicing nearby BBC wells. The pipeline crosses entirely Ute Tribe surface.
- g. The new segment of gas pipeline would be surface laid within a 30 foot wide pipeline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates.
- h. Construction of the ROW would temporarily utilize the 30 foot disturbed width for the road for a total disturbed width of 60 foot for the road and pipeline corridors. The use of the proposed well site and access roads would facilitate the staging of the pipeline construction.
- i. Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the re-establishment of the native plant community.
- j. All permanent above-ground structures would be painted a flat, non-reflective color, such as Beetle Green, to match the standard environmental colors. All facilities would be painted the designated color at the time of installation.

Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.

- k. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any modifications to proposed facilities would be reflected in the site security diagram submitted.
- l. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.

5. Location and Type of Water Supply:

- a. Water for the drilling and completion would be trucked from any of the following locations:

Water Right No. and Application or Change No.	Applicant	Allocation	Date	Point of Diversion	Source
43-180	Duchesne City Water Service District	5 cfs	4/13/2004	Knight Diversion Dam	Duchesne River
43-1202, Change a13837	Myton Co	5.49 cfs and 3967 acre feet	3/21/1986	Knight Diversion Dam	Duchesne River
43-10444, Appln A57477	Duchesne County Upper Country Water	2 cfs	1994	Ditch at Source	Cow Canyon Spring
43-10446, Appln A57472	Duchesne County Upper Country Water	1.58 cfs	1994	Ditch at Source	Cow Canyon Spring
43-1273, Appln A17462	J.J.N.P. Company	7 cfs	1946	Strawberry River	Strawberry River
43-1273, Appln t36590	J.J.N.P. Company	4 cfs	6/03/2010	Strawberry River	Strawberry River
43-2505, Appln t37379	McKinnon Ranch Properties, LC	1.3 cfs	4/28/2011	Pumped from Sec, 17, T4SR6W	Water Canyon Lake
43-12415, Change A17215a	Peatross Ranch, LLC	1.89 cfs	09/2011	Dugout Pond	Strawberry River

- b. No new water well is proposed with this application.
- c. Should additional water sources be pursued they would be properly permitted through the State of Utah – Division of Water Rights.

- d. Water use would vary in accordance with the formations to be drilled but would be up to approximately 5.41 acre feet for drilling and completion operations.

6. Source of Construction Material:

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be removed from the lease or EDA area.
- c. If any additional gravel is required, it would be obtained from a local supplier having a permitted source of materials within the general area.

7. Methods of Handling Waste Disposal:

- a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.
- b. The reserve pit would be constructed so as not to leak or allow any discharge.
- c. The reserve would be lined with 12 mil minimum thickness polyethylene nylon reinforced liner material. The liner would overlay straw, dirt and/or bentonite if rock is encountered during excavation. The liner would overlap the pit walls and be covered with dirt and/or rocks to hold them in place. No trash, scrap pipe, or other materials that could puncture the liner would be discarded in the pit. A minimum of two feet of free board would be maintained between the maximum fluid level and the top of the reserve pit at all times.

To deter livestock from entering the pit, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and completion activities, the fourth side would also be fenced.

- e. Drill cuttings would be contained in the pit and buried on-site for a period not to exceed six months, weather permitting
- f. Produced fluids from the well other than water would be decanted into steel test tank(s) until such time as construction of production facilities is completed. Any oil that may be accumulated would be transferred to a permanent production tank. Produced water may be used in further drilling and completion activities, evaporated in the pit, or would be hauled to one of the following state-approved disposal facilities:

Disposal Facilities
1. RNI Industries, Inc. – Pleasant Valley Disposal Pits, Sec. 25, 26, 35 & 36, T4S-R3W
2. Pro Water LLC – Blue Bench 13-1 Disposal Well (43-013-30971) NENE, Sec. 13, T3S-R5W

Disposal Facilities
3. RN Industries, Inc. – Bluebell Disposal Ponds, Sec. 2, 4 & 9, T2S-R2W
4. Water Disposal, Inc. – Harmston 1-32-A1 Disposal Well (43-013-30224), UTR #00707, Sec. 32, T1S-R1W
5. Unified Water Pits – Sec. 31, T2S-R4W
6. Iowa Tank Line Pits – 8500 BLM Fence Road, Pleasant Valley
7. Western Water Solutions – Sand Pass Ranch, Sections 9 and 10, T4S-R1W, permit #WD-01-2011

- g. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.
- h. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Duchesne, Utah.
- i. Chemicals on the EPA's Consolidated List of Chemicals Subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and CO₂ gas, all described as hazardous substances in 40 CFR Part 302, Section 302.4, in quantities exceeding 10,000 pounds. In addition, natural gas condensate and crude oil and methanol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD-40}, and lubrication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.
- j. Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.
- k. Sanitary waste equipment and trash bins would be removed from the Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.

1. A flare pit may be constructed a minimum of 110' from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the Project Area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is feasible. At which point the fluid would either be returned to the reserve pit or placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.
- m. Hydrocarbons would be removed from the reserve pit as soon as practical. In the event immediate removal is not practical, the reserve pit would be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

8. Ancillary Facilities:

- a. Garbage containers and portable toilets would be located on the well pad.
- b. On well pads where active drilling and completion is occurring, temporary housing would be provided on location for the well pad supervisor, geologist, tool pusher, and others that are required to be on location at all times. The well pad could include up to five single wide mobile homes or fifth wheel campers/trailers.
- c. A surface powerline corridor 3,101 feet in length is proposed for installation by third-party installer within a 150 foot wide powerline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates. The powerline crosses entirely Ute Tribe surface.

9. Well Site Layout:

- a. The well would be properly identified in accordance with 43 CFR 3162.6.
- b. The pad layout, cross section diagrams and rig layout are enclosed (see Figures 1 and 2).
- c. The pad and road designs are consistent with industry specifications.
- d. The pad has been staked at its maximum size of 400 feet x 295 feet with an inboard reserve pit size of 205 feet x 100 feet x 8 feet deep. See section 12.d below for disturbance estimates.
- e. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.

- f. Fill from pit excavation would be stockpiled along the edge of the pit and the adjacent edge of the well pad.
- g. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.
- h. All cut and fill slopes would be such that stability can be maintained for the life of the activity.
- i. Diversion ditches would be constructed, if necessary, around the well site to prevent surface waters from entering the well site area.
- j. Water application may be implemented if necessary to minimize the amount of fugitive dust.
- k. All surface disturbing activities would be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

10. Plan for Restoration of the Surface:

- a. A site specific reclamation plan would be submitted, if requested, within 90 days of location construction to the surface managing agency.
- b. Site reclamation would be accomplished for portions of the well pad not required for the continued operation of the well on this pad within six months of completion, weather permitting.
- c. The operator would control noxious weeds along access road use authorizations and well site by spraying or mechanical removal, according to the Utah Noxious Weed Act and as set forth in the approved surface damage agreements.
- d. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit would be allowed to dry prior to the commencement of backfilling work. No attempts would be made to backfill the reserve pit until it is free of standing water. Once dry, the liner would be torn and perforated before backfilling.
- e. The reserve pit and that portion of the location not needed for production facilities/operations would be recontoured to the approximate natural contours.

Areas not used for production purposes would be backfilled and blended into the surrounding terrain, reseeded and erosion control measures installed. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes would be reduced as practical and scarified with the contour. The reserved topsoil would be evenly distributed over the slopes and scarified along the contour. Slopes would be seeded with the Ute Tribe specified seed mix.

- f. Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the Ute Tribe prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.

11. Surface and Mineral Ownership:

- a. Surface ownership - Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.
- b. Mineral ownership – Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

12. Other Information:

- a. Montgomery Archeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as report 11-177 dated June 27, 2011.
- b. BHC would require that their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources.
- c. Project personnel and contractors would be educated on and subject to the following requirements:
 - No dogs or firearms within the Project Area.
 - No littering within the Project Area.
 - Smoking within the Project Area would only be allowed in off-operator active locations or in specifically designated smoking areas. All cigarette butts would be placed in appropriate containers and not thrown on the ground or out windows of vehicles; personnel and contractors would abide by all fire restriction orders.
 - Campfires or uncontained fires of any kind would be prohibited.
 - Portable generators used in the Project Area would have spark arrestors.

Bill Barrett Corporation
Surface Use Plan
14-13D-45 BTR
Duchesne County, UT

d. Disturbance estimates:

Approximate Acreage Disturbances

Well Pad		3.667	acres
Access	254 feet	0.156	acres
Pipeline	2,979 feet	2.030	acres
Powerline	3,101 feet	10.569	acres

Total		16.422	acres
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Returned Unapproved

Bill Barrett Corporation
Surface Use Plan
14-13D-45 BTR
Duchesne County, UT

OPERATOR CERTIFICATION

Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application and that bond coverage is provided under Bill Barrett Corporations federal nationwide bond. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

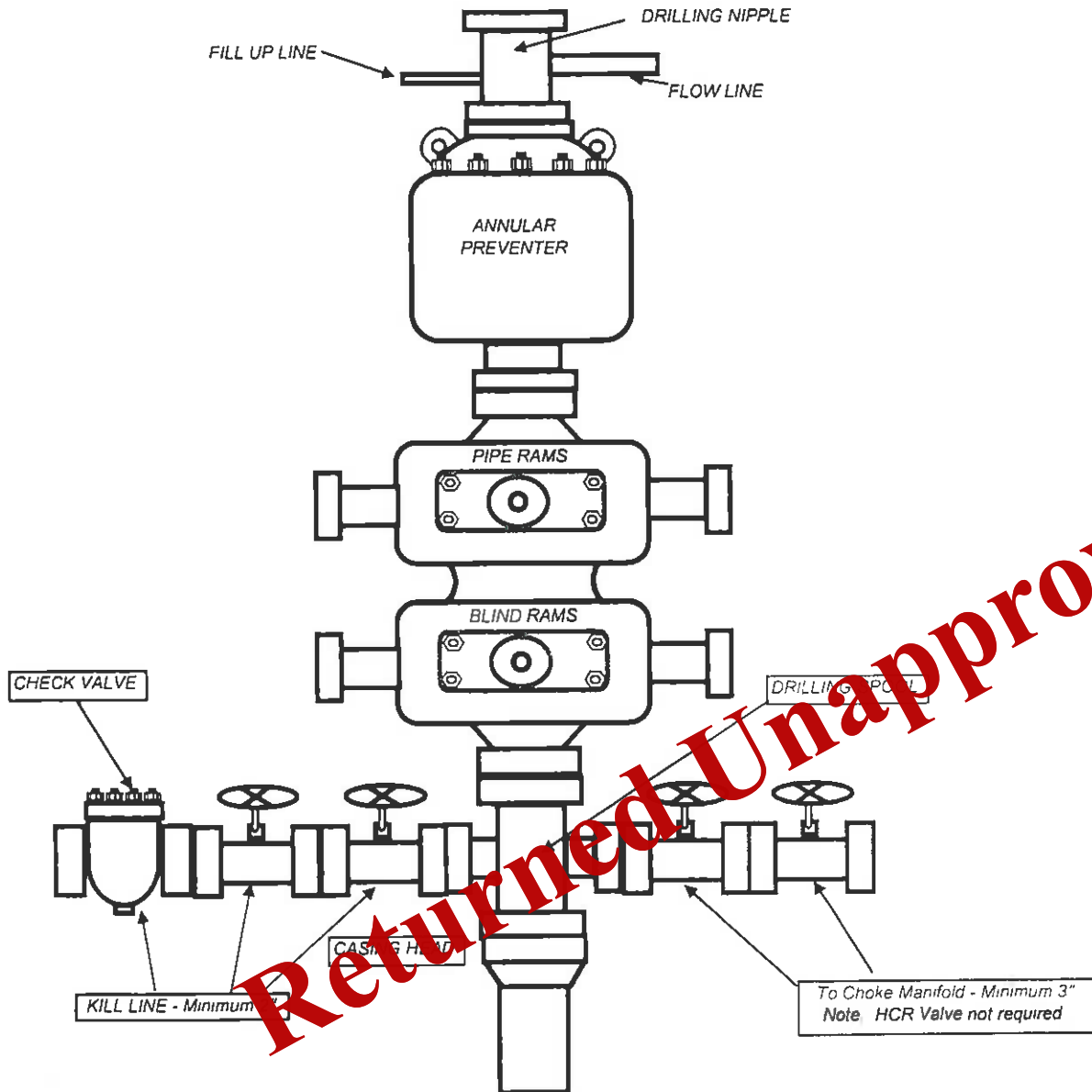
Executed this 21st day of June 2012
Name: Venessa Langmacher
Position Title: Senior Permit Analyst
Address: 1099 18th Street, Suite 2300, Denver, CO 80202
Telephone: 303-312-8172
E-mail: vlangmacher@billbarrettcorp.com
Field Representative: Kary Eldredge / Bill Barrett Corporation
Address: 1820 W. Highway 40, Roosevelt, UT 84066
Telephone: 435-725-3515 (office); 435-724-6789 (mobile)
E-mail: keldredge@billbarrettcorp.com

Venessa Langmacher
Venessa Langmacher, Senior Permit Analyst

Returned Unapproved

BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER



BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. CHOKE MANIFOLD

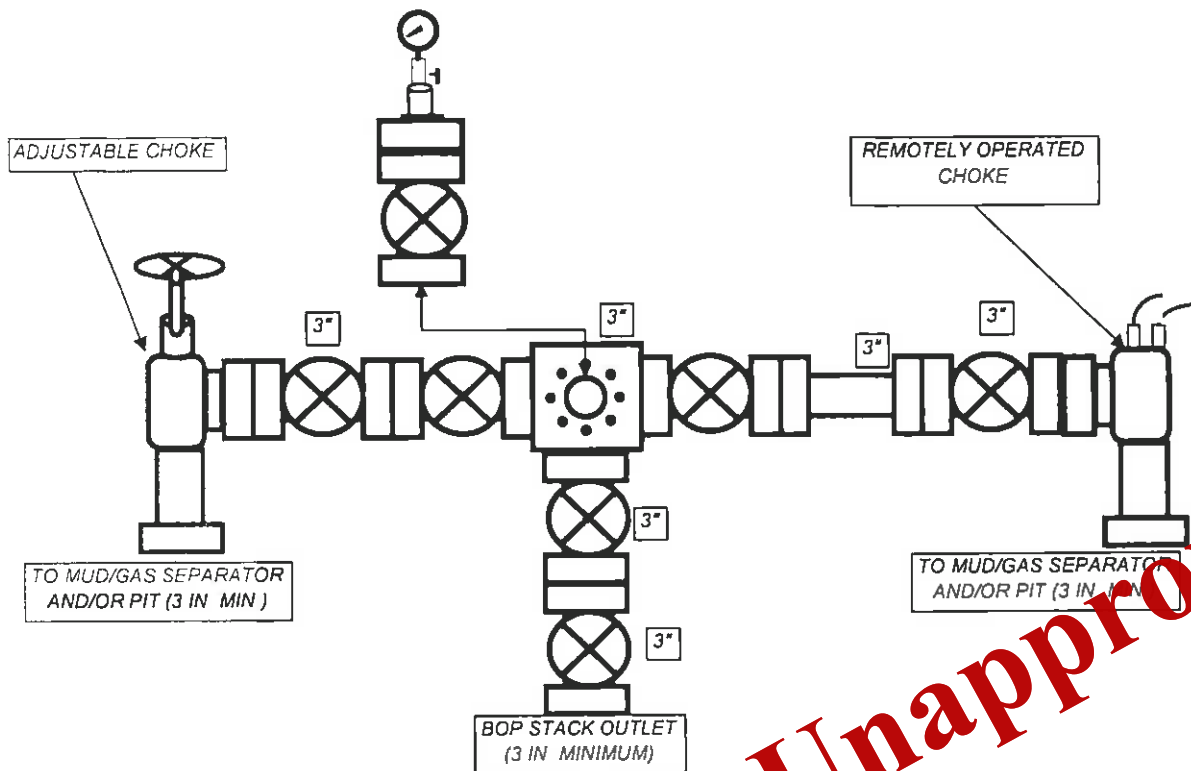


Diagram illustrating a wellhead assembly. The central component is a BOP stack outlet, labeled "BOP STACK OUTLET (3 IN MINIMUM)". Above this outlet are two 3-inch valves, each marked with a "3\"". To the right, a line connects to a "MUD/GAS SEPARATOR AND/OR PIT (3 IN MINIMUM)". A large red diagonal stamp across the diagram reads "Returned Unapproved".



Bill Barrett Corporation

June 21, 2012

Ms. Diana Mason – Petroleum Technician
State of Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

Re: Directional Drilling R649-3-11
Blacktail Ridge Area #14-13D-45 BTR Well
Surface: 532' FSL & 2080' FWL, SESW, 13-T4S-R5W, USM
Bottom Hole: 810' FSL & 1980' FWL, SESW, 13-T4S-R5W, USM
Duchesne County, Utah

Dear Ms. Mason,

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill the above referenced well, we hereby submit this letter in accordance with Oil & Gas Conservation Rules R649-2, R649-3, R649-10 and R649-11, pertaining to the Location and Siting of Wells.

- The proposed location is within our Blacktail Ridge Area.
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area.
- The well will be drilled under an Exploration and Development Agreement between the Ute Indian Tribe and Ute Distribution Corporation. Ute Energy, LLC owns a right to participate in this well.
- BBC certifies that it is the working interest owner of all lands within 460 feet of the proposed well location, and together with Ute Energy, LLC, we own 100% of the working interest in these lands.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. Should you have any questions or need further information, please contact me at 303-312-8544.

Sincerely,

Venera Langmackey
for

David Watts
Landman

1099 18TH STREET
SUITE 2300
DENVER, CO 80202
P 303.293.9100
F 303.291.0420

Received: June 21, 2012

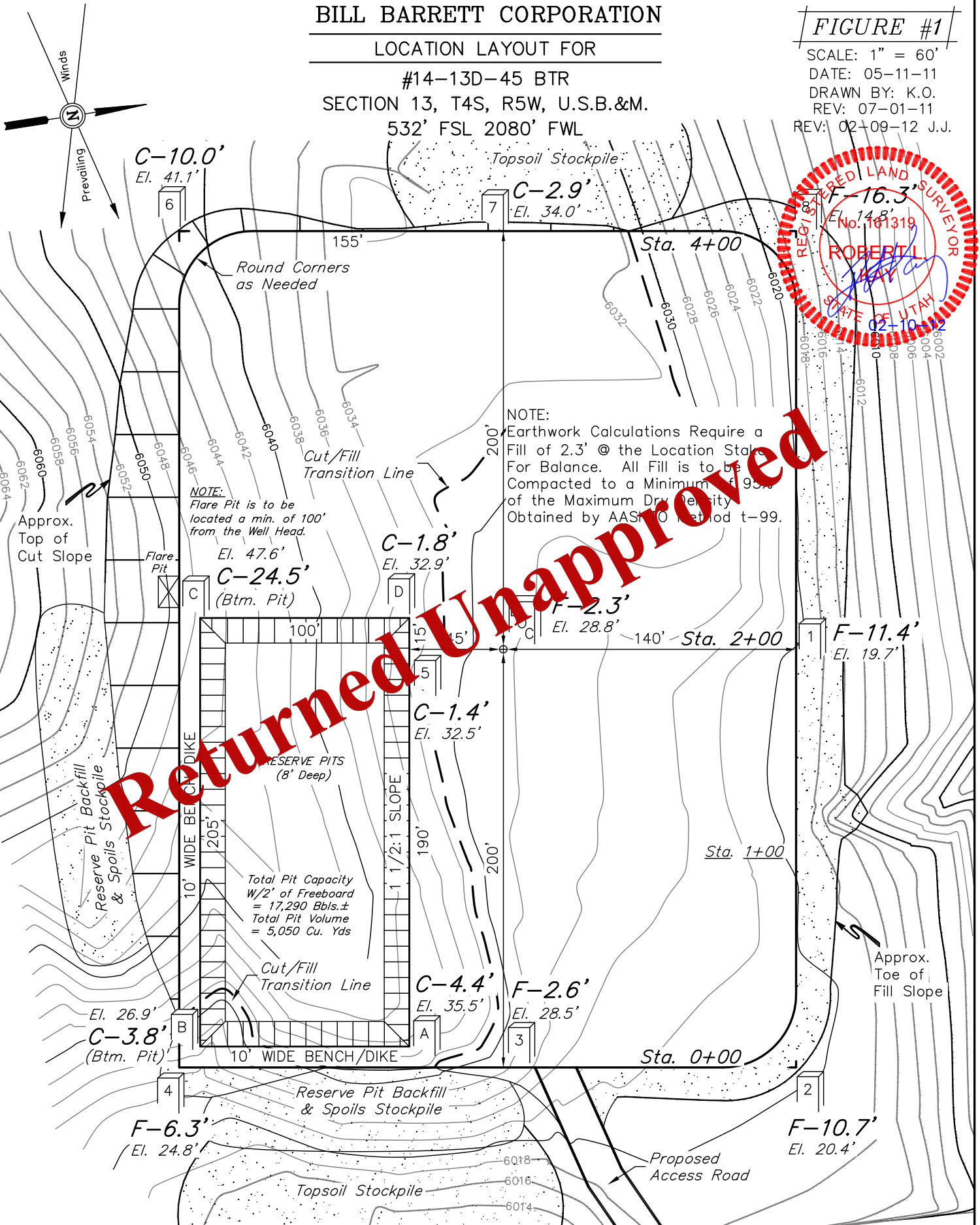
BILL BARRETT CORPORATION

LOCATION LAYOUT FOR

#14-13D-45 BTR
SECTION 13, T4S, R5W, U.S.B.&M.
532' FSL 2080' FWL

FIGURE #1

SCALE: 1" = 60'
DATE: 05-11-11
DRAWN BY: K.O.
REV: 07-01-11
REV: 02-09-12 J.J.



Elev. Ungraded Ground At Loc. Stake = 6028.8'
FINISHED GRADE ELEV. AT LOC. STAKE = 6031.1'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

Received: June 21, 2012

BILL BARRETT CORPORATION

TYPICAL CROSS SECTIONS FOR

#14-13D-45 BTR

SECTION 13, T4S, R5W, U.S.B.&M.

532' FSL 2080' FWL

FIGURE #2

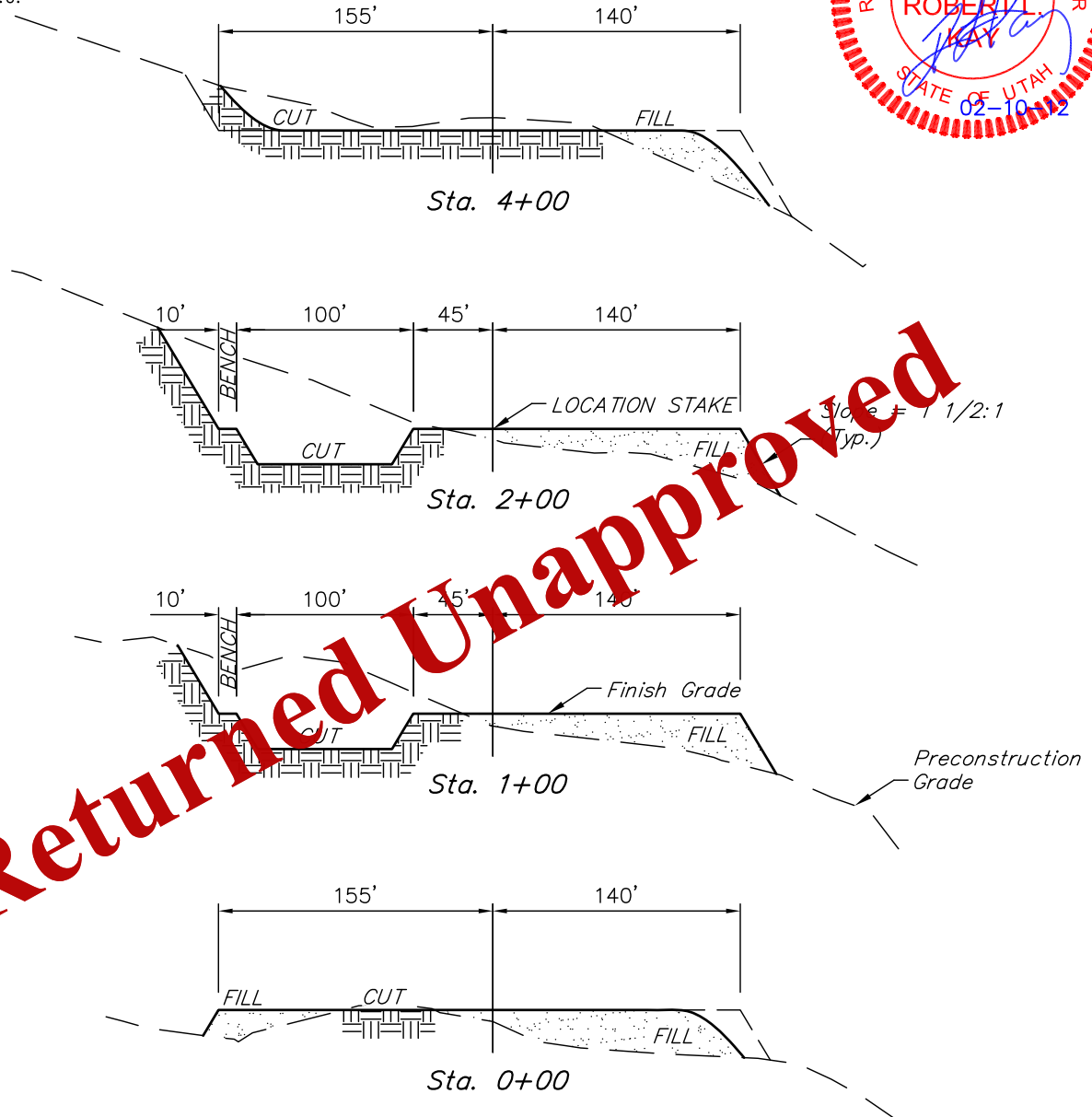
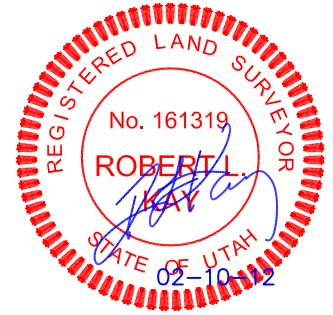
X-Section
Scale
1" = 40'
1" = 100'

DATE: 05-11-11

DRAWN BY: K.O.

REV: 07-01-11

REV: 02-09-12 J.J.



APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ± 3.564 ACRES
ACCESS ROAD DISTURBANCE = ± 0.156 ACRES
PIPELINE DISTURBANCE = ± 2.030 ACRES
TOTAL = ± 5.750 ACRES

* NOTE:
FILL QUANTITY INCLUDES
5% FOR COMPACTION

APPROXIMATE YARDAGES

(12") Topsoil Stripping = 5,500 Cu. Yds.
Remaining Location = 19,440 Cu. Yds.
TOTAL CUT = 24,940 CU.YDS.
FILL = 16,910 CU.YDS.

EXCESS MATERIAL = 8,030 Cu. Yds.
Topsoil & Pit Backfill = 8,030 Cu. Yds.
(1/2 Pit Vol.)
EXCESS UNBALANCE = 0 Cu. Yds.
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

Received: June 21, 2012

BILL BARRETT CORPORATION

TYPICAL RIG LAYOUT FOR

#14-13D-45 BTR
SECTION 13, T4S, R5W, U.S.B.&M.
532' FSL 2080' FWL

FIGURE #3

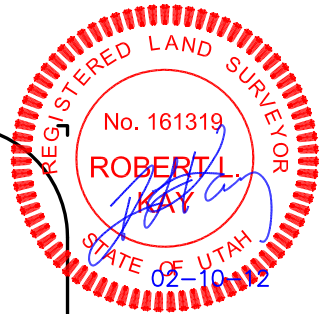
SCALE: 1" = 60'

DATE: 05-11-11

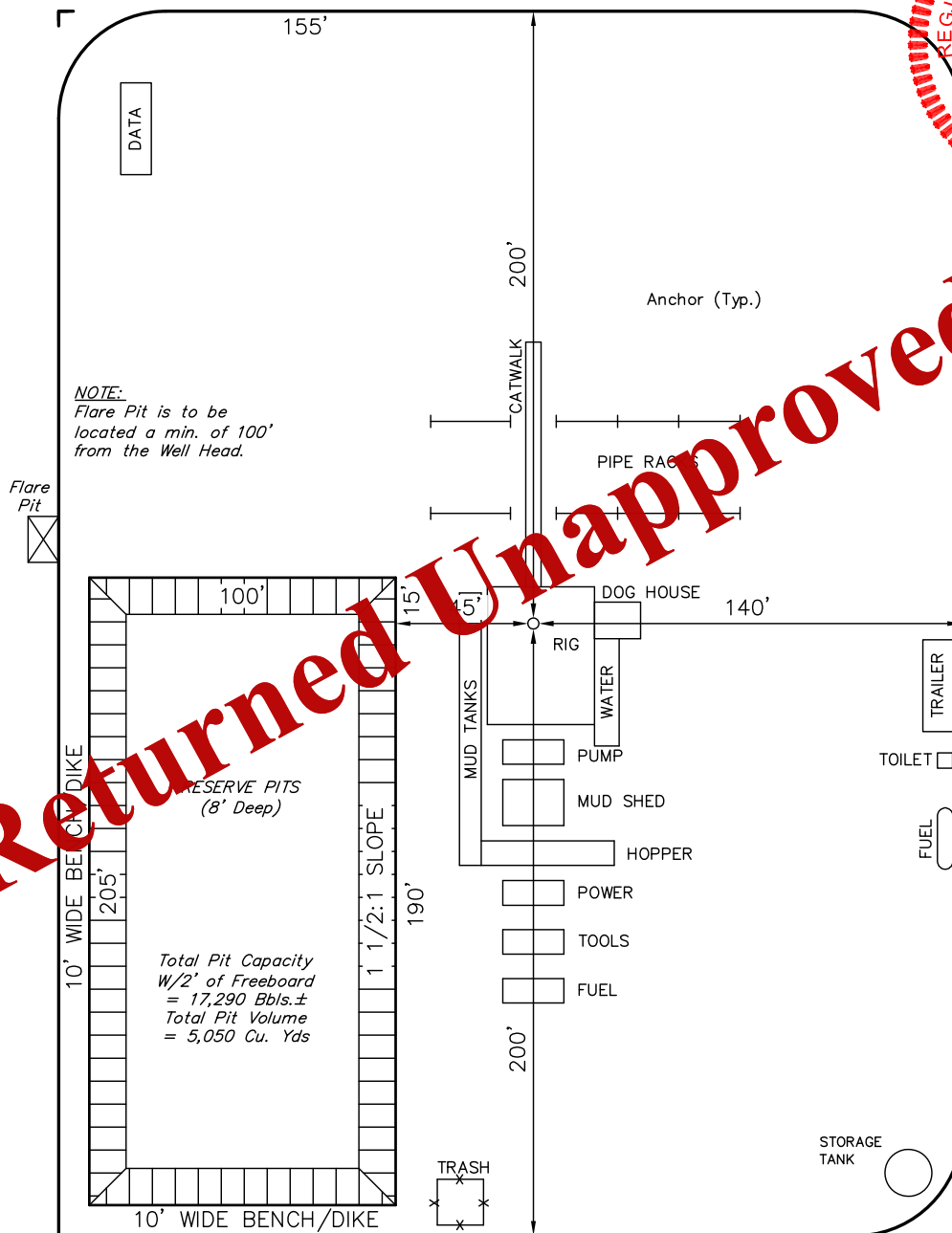
DRAWN BY: K.O.

REV: 07-01-11

REV: 02-09-12 J.J.



Returned Unapproved



BILL BARRETT CORPORATION
INTERIM RECLAMATION PLAN FOR
#14-13D-45 BTR
SECTION 13, T4S, R5W, U.S.B.&M.
532' FSL 2080' FWL

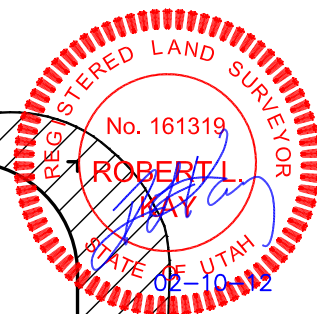
FIGURE #4

SCALE: 1" = 60'

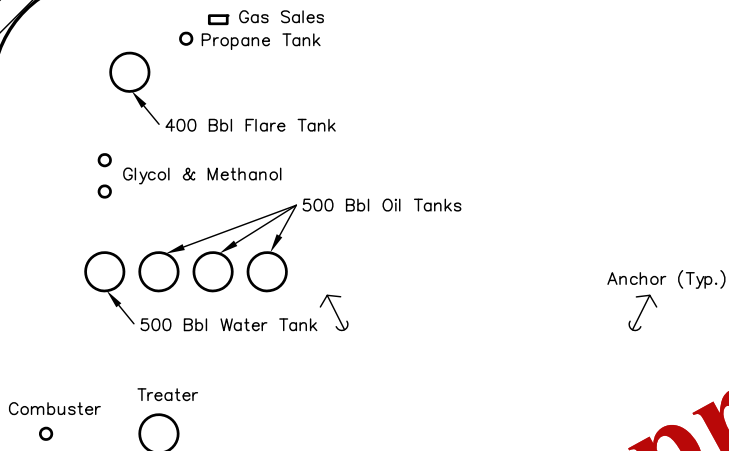
DATE: 07-14-11

DRAWN BY: K.O.

REV: 02-09-12 J.J.



Returned Unapproved



Pump
Unit

Well Head

90'

45'

Access Road

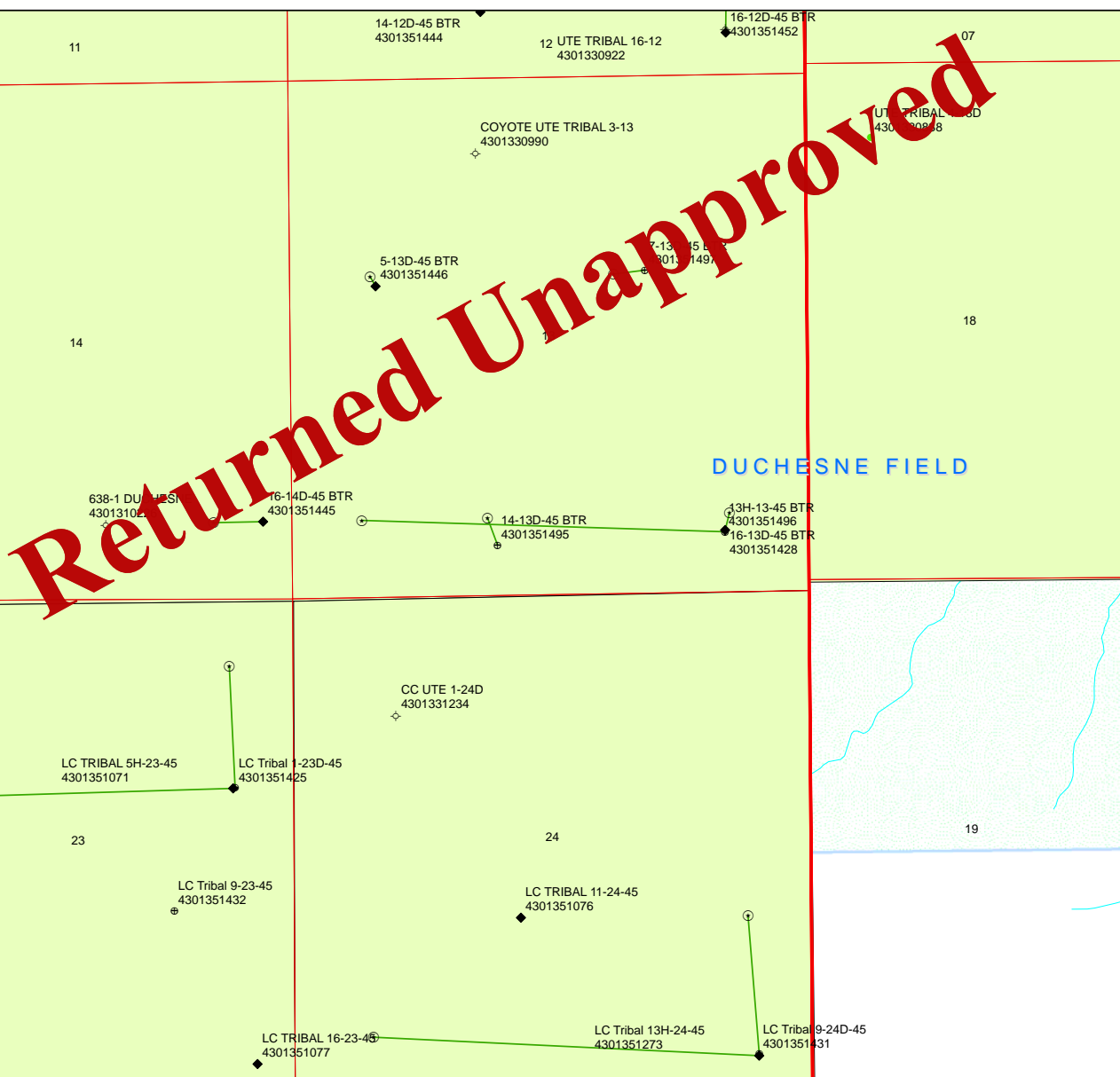


INTERIM RECLAMATION

APPROXIMATE ACREAGES
UN-RECLAIMED = ± 2.120 ACRES

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

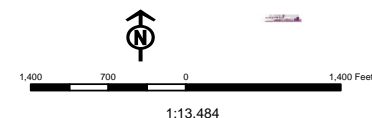
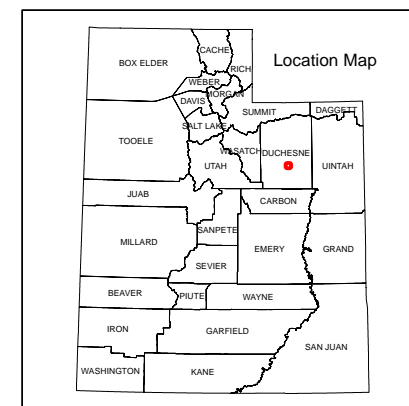
Received: June 21, 2012



API Number: 4301351495
Well Name: 14-13D-45 BTR
Township T04.0S Range R05.0W Section 13
Meridian: UBM
Operator: BILL BARRETT CORP

Map Prepared:
 Map Produced by Diana Mason

Units	Wells Query
STATUS	Status
ACTIVE	APD - Approved Permit
EXPLORATORY	DRL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LOC - New Location
PI OIL	OPS - Operation Suspended
PP GAS	PA - Plugged Abandoned
PP GEOTHERM	PGW - Producing Gas Well
PP OIL	POW - Producing Oil Well
SECONDARY	SGW - Shut-in Gas Well
TERMINATED	SOW - Shut-in Oil Well
Fields	TA - Temp. Abandoned
Unknown	TW - Test Well
ABANDONED	WDW - Water Disposal
ACTIVE	WW - Water Injection Well
COMBINED	WSW - Water Supply Well
INACTIVE	Bottom Hole Location - Oil/Gas/Dls
STORAGE	
TERMINATED	



Received: June 27, 2012



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

June 28, 2012

BILL BARRETT CORP
1099 18th Street Ste 2300
Denver, CO 80202

Re: Application for Permit to Drill - DUCHESNE County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the 14-13D-45 BTR well, API 43013514950000 that was submitted June 21, 2012 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason
Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

June 29, 2012

BILL BARRETT CORP
1099 18th Street Ste 2300
Denver, CO 80202

Re: Application for Permit to Drill - DUCHESNE County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the 14-13D-45 BTR well, API 43013514950000 that was submitted June 21, 2012 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason
Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah